

FIG. IAvi

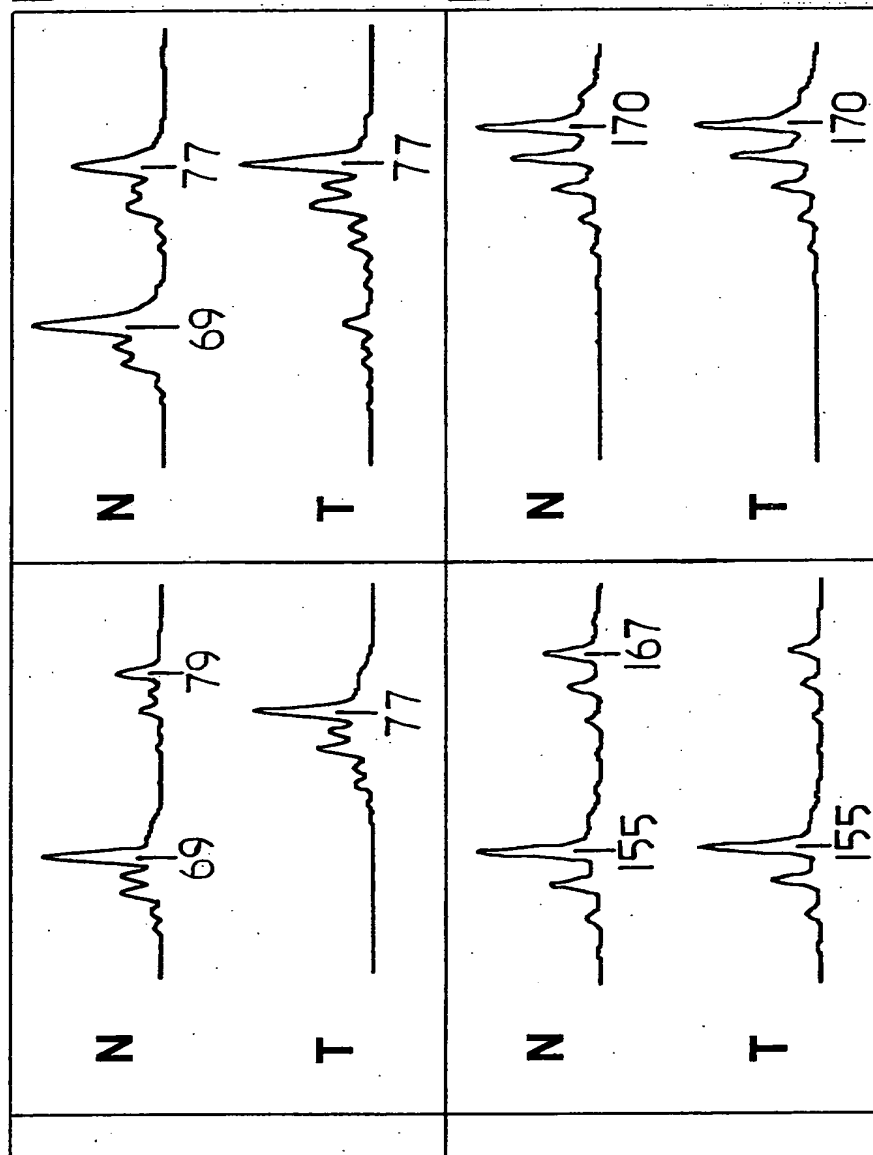


FIG. IAv

FIG. IAvii

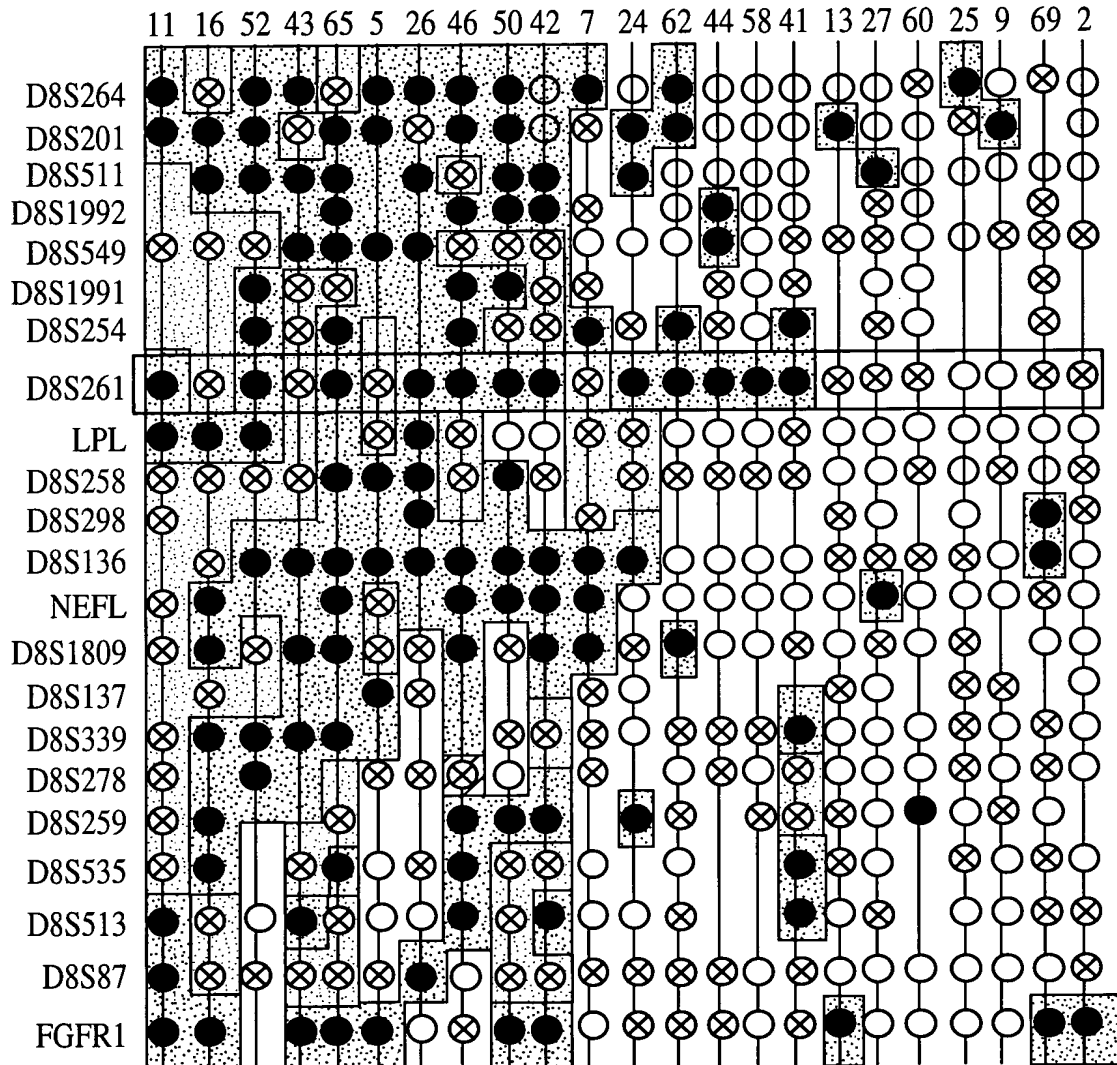
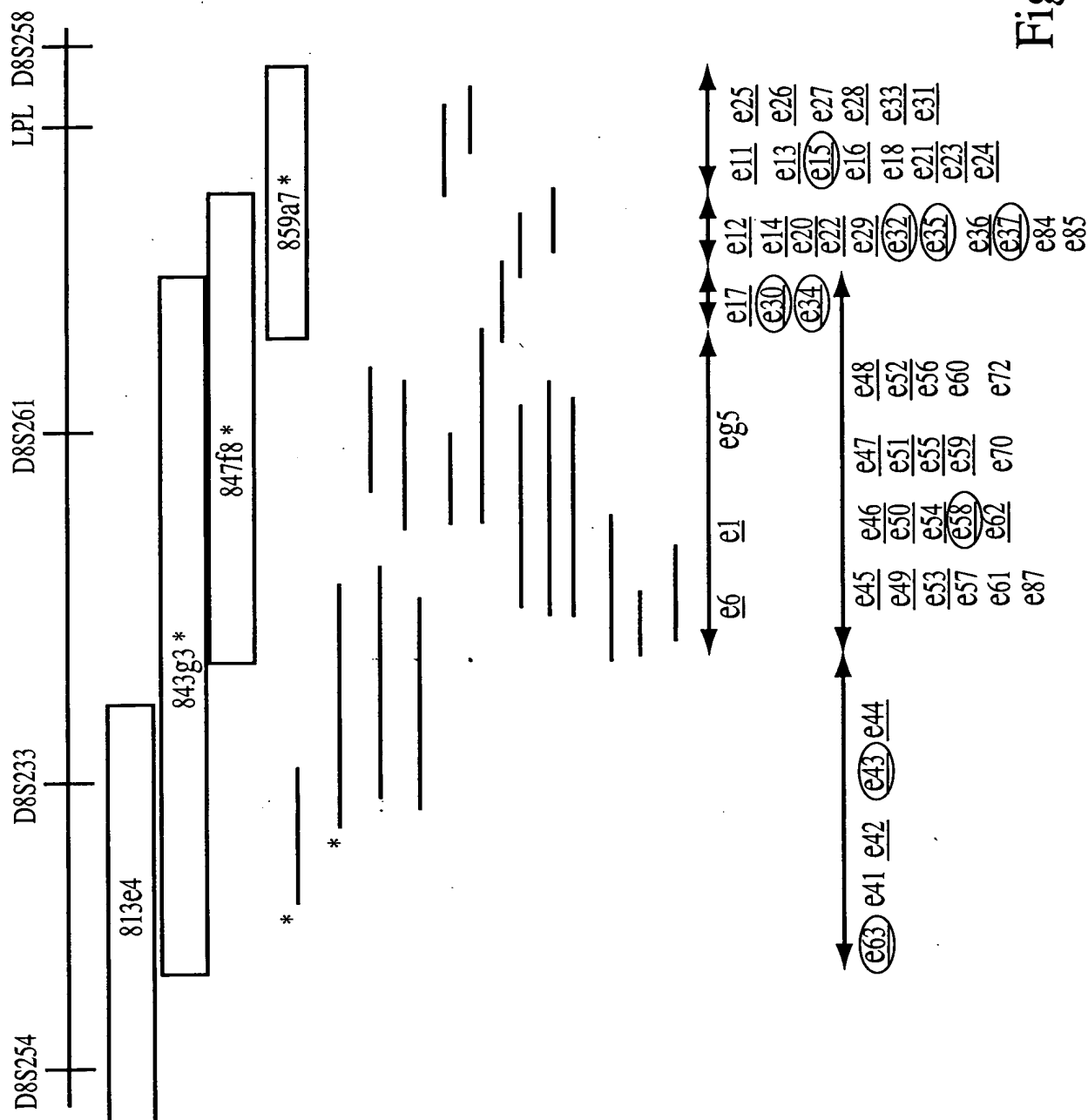


Fig. 1B



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M G S V S S L I S G H S F H S K H C R A S Q Y K L R K S S H 30
                                     *
L K K L N R Y S D G L L R F G F S Q D S G H G K S S S K M G 60
K S E D F F Y I K V S Q K A R G S H H P D Y T A L S S G D L 90
                                     .....
G G Q A G V D F D P S T P P K L M P F S N Q L E M G S E K G 120
                                     .....*
A V R P T A F K P V L P R S G A I L H S S P E S A S H Q L H 150
                                     |||||
P A P P D K P K E Q E L K P G L C S G A L S D S G R N S M S 180
                                     .....
S L P T H S T S S S Y Q L D P L V T P V G P T S R F G G S A 210
                                     .....
H N I T Q G I V L Q D S N M M S L K A L S F S D G G S K L G 240
                                     .....|||
H S N K A D K G P S C V R S P I S T D E C S I Q E L E Q K L 270
                                     |||||
L E R E G A L Q K L Q R S F E E K E L A S S L A Y E E R P R 300
                                     |||||
R C R D E L E G P E P K G G N K L K Q A S Q K S Q R A Q Q V 330
L H L Q V L Q L Q Q E K R Q L R Q E L E S L M K E Q D L L E 360
T K L R S Y E R E K T S F G P A L E E T Q W E V C Q K S G E 390
                                     |||||
I S L L K Q Q L K E S Q T E V N A K A S E I L G L K A Q L K 420
                                     |||||
D T R G K L E G L E L R T Q D L E G A L R T K G L E L E V C 450
E N E L Q R K K N E A E L L R E K V N L L E Q E L Q E L R A 480
Q A A L A R D M G P P T F P E D V P A L Q R E L E R L R A E 510
                                     |||||*
L R E E R Q G H D Q M S S G F Q H E R L V W K E E K E K V I 540
Q Y Q K Q L Q Q S Y V A M Y Q R N Q R L E K A L Q Q L A R G 570
D S A G E P L E V D L E G A D I P Y E D I I A T E I
    |||||
    
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FIG. 2A

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KIA0522 --AWERELAELRQGCSGKLQQVARRAQRAQ--QGLQLQ
Fez1 --RCRDELEGPEPKGGNKLKQASQKSQRAQ--QVLHLQ
ATF-5 ISRRRREKENPKER--NKMAAAKCRNRRRELTDTLQAE
#

KIA0522 VLRLQQDKKQLQEEAARLMRQREELEDKVAACQKE
Fez1 VLQLQQEKRQLRQELESLMKEQDLLETKLRSYERE
ATF-5 TDQLEDEKSALQTEIANLLKEKEKLEFILAAH
#

Fig. 2B

FIG. 2C

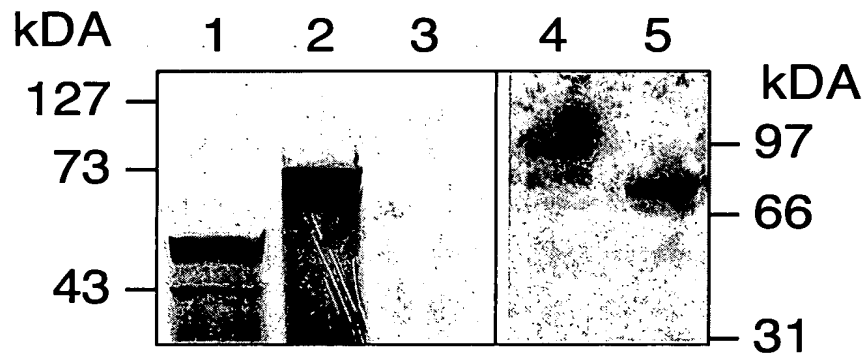


FIG. 2D

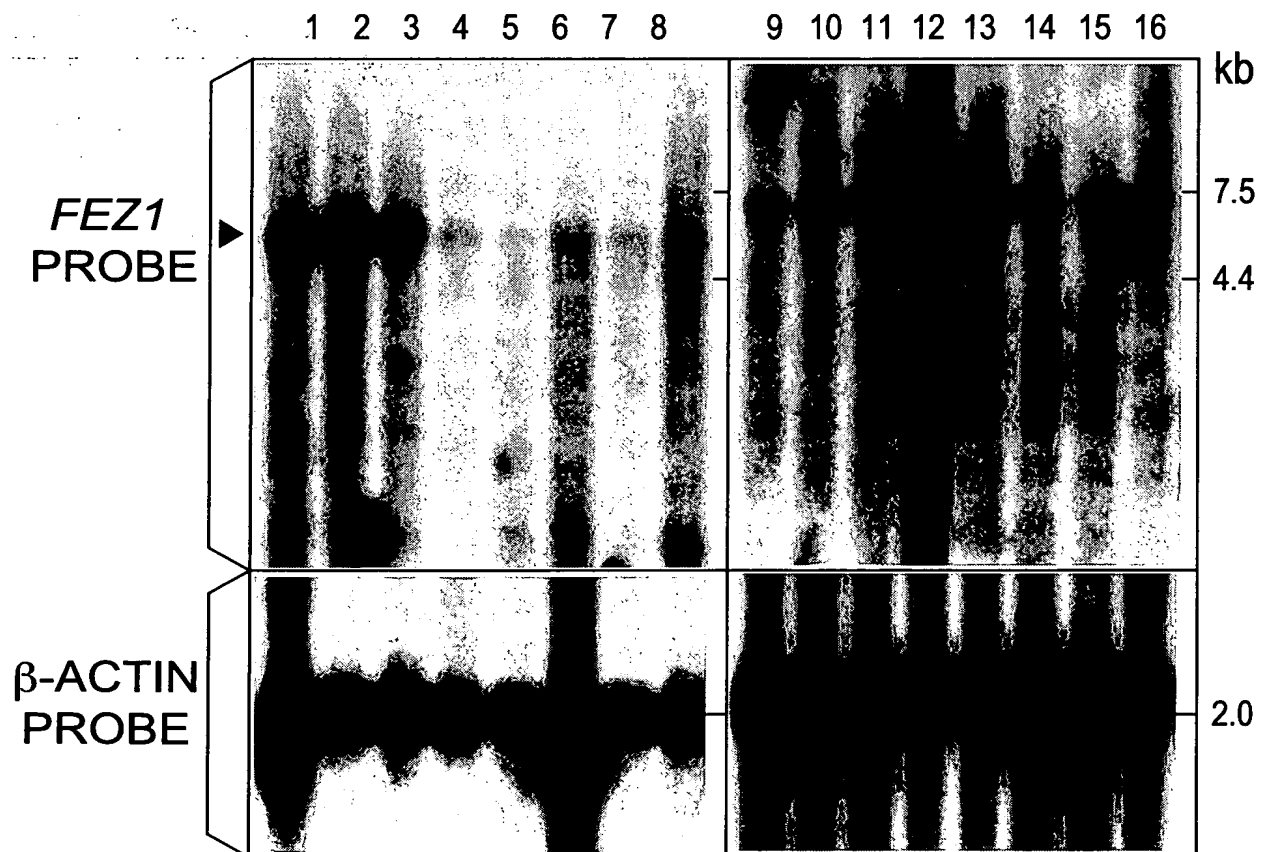
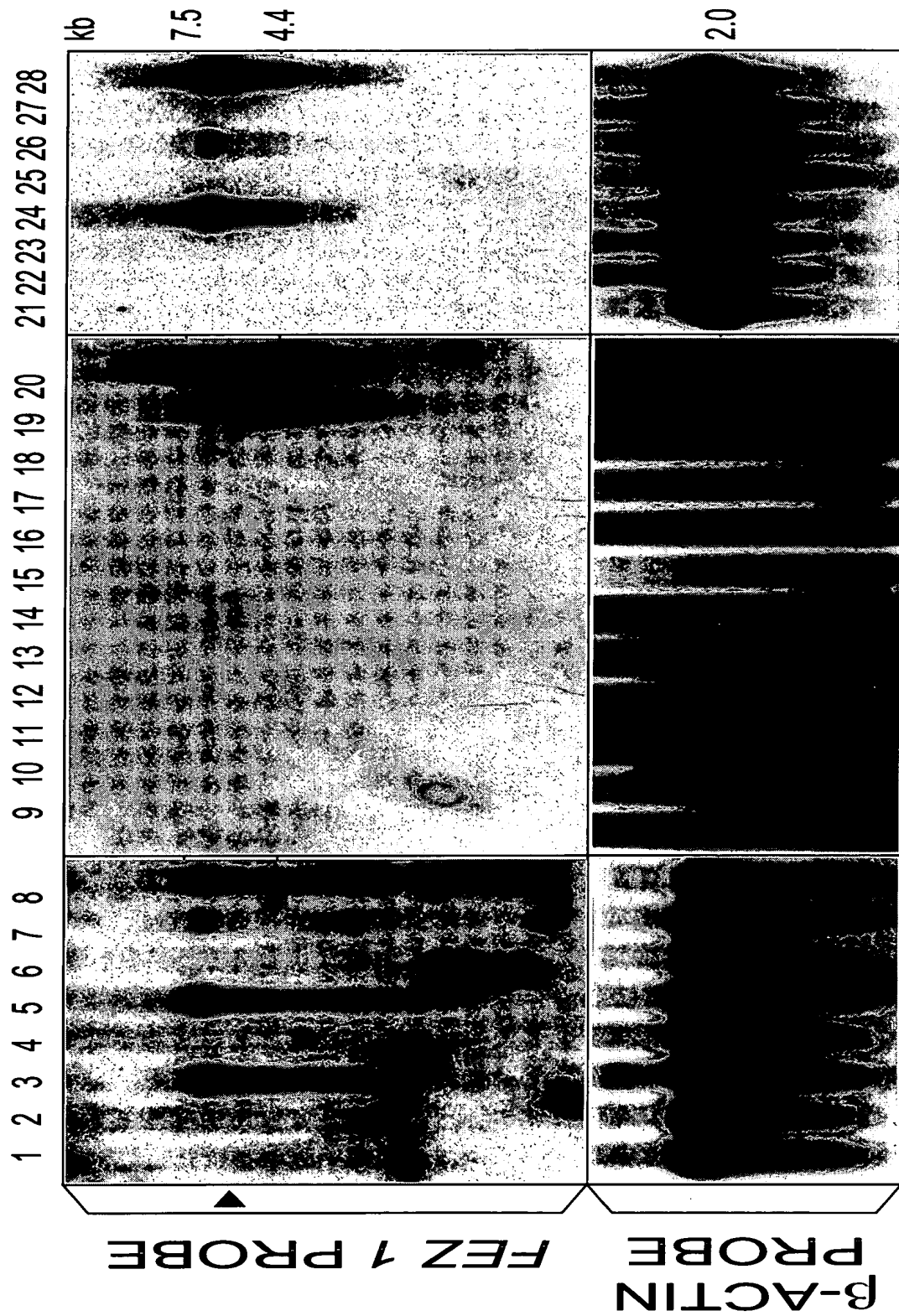


FIG. 3A



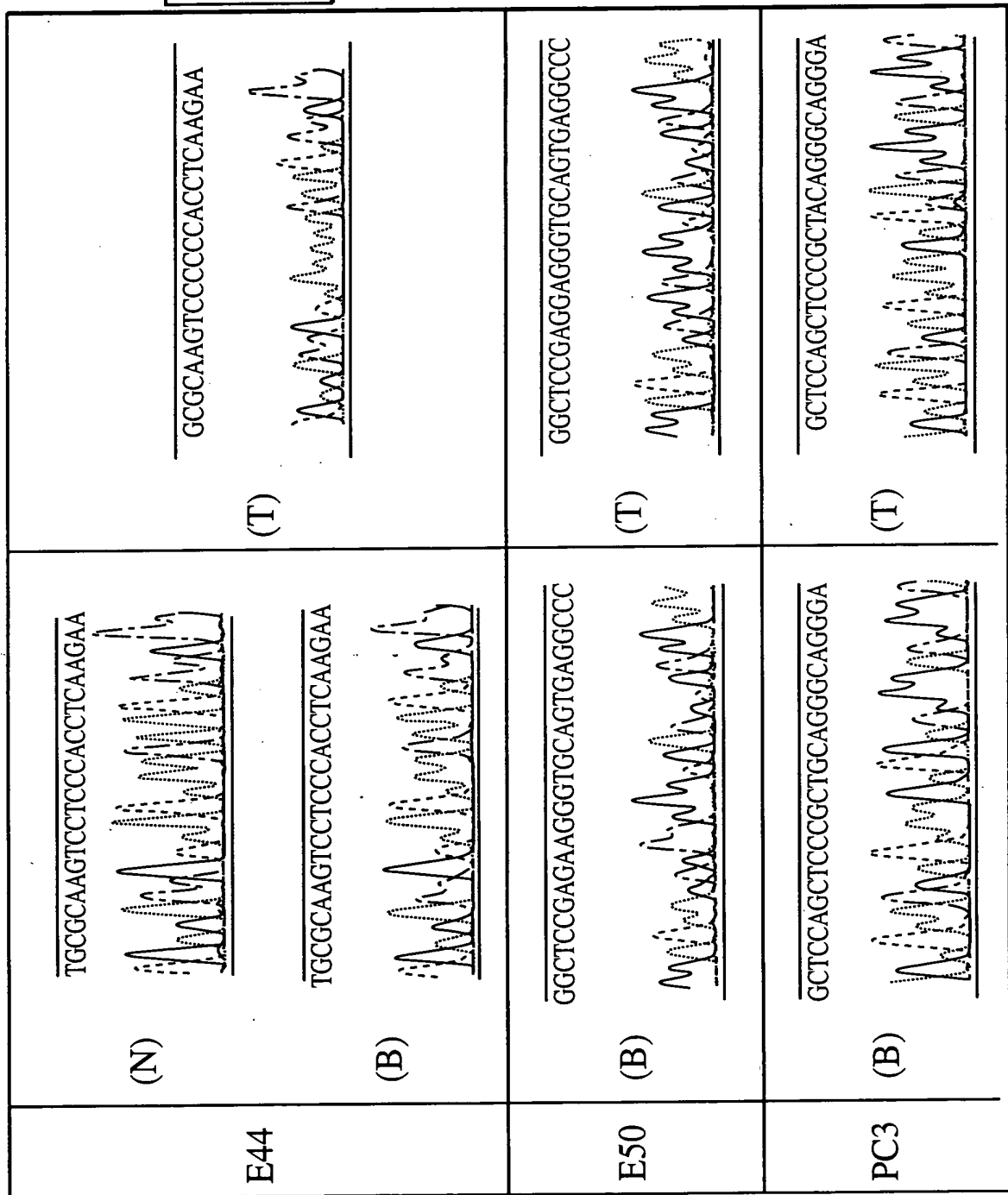
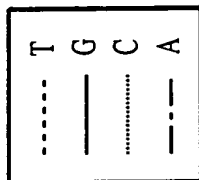
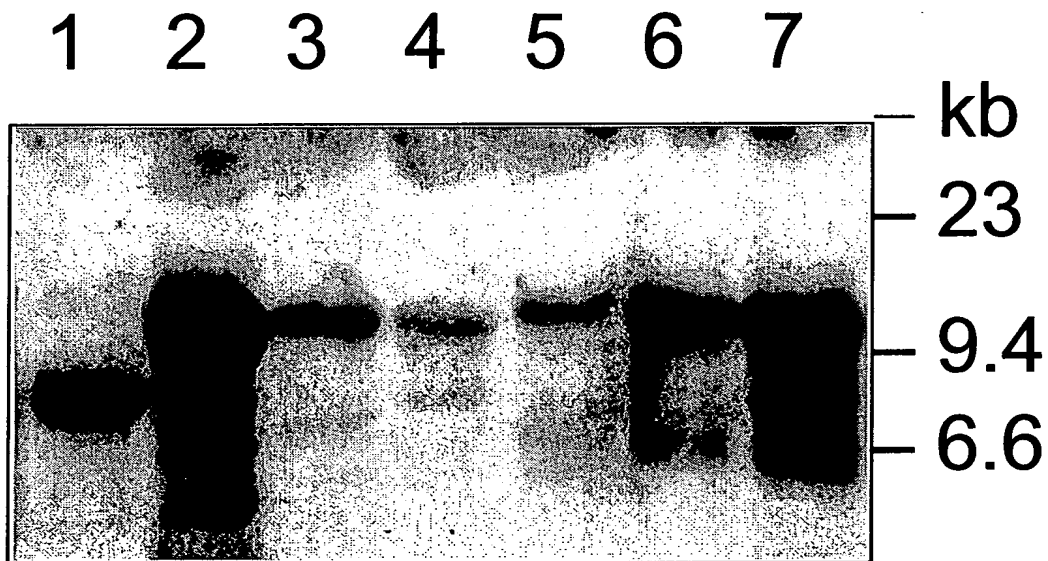


Fig. 3B

FIG. 3C



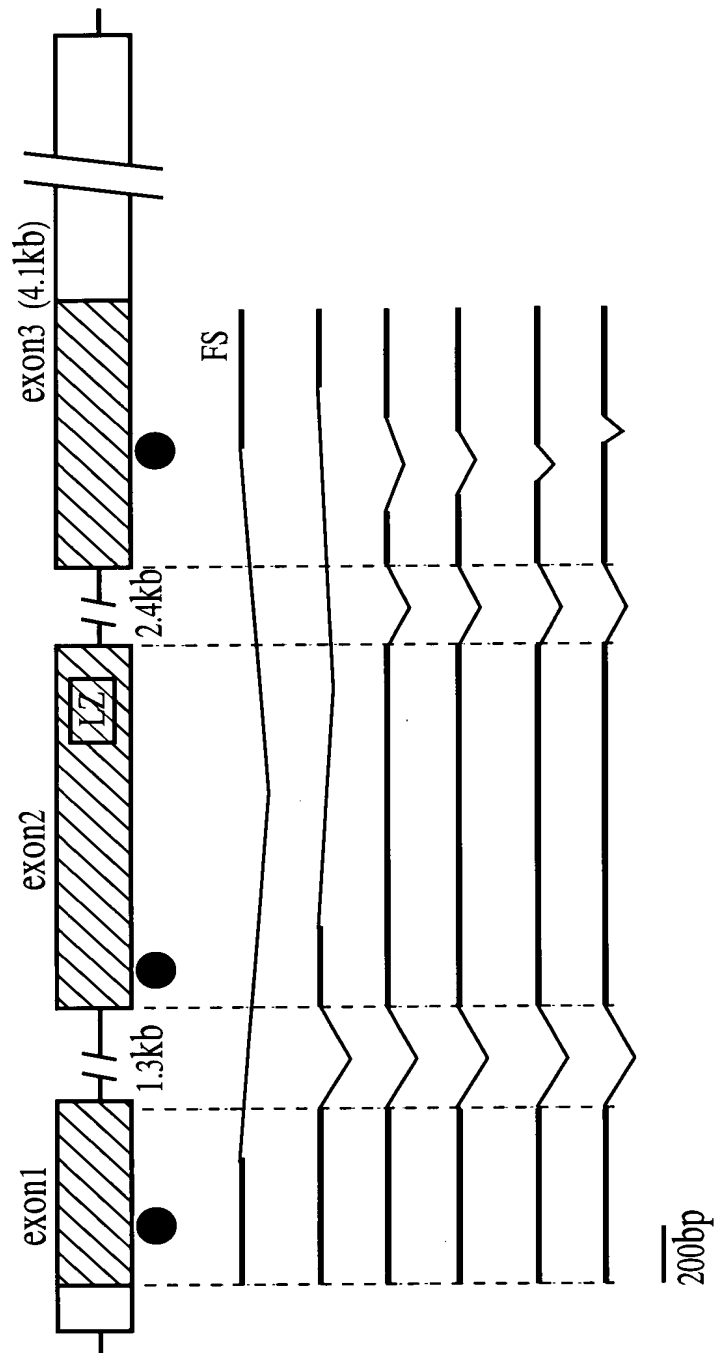


Fig. 4A

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GCCTTTCCAA GACCCTGCCC GGCCCTGCCC CATCCTCAGC CCCGAGTCAC CATGGGCAGC 60
GTCAGTAGCC TCATCTCCGG CCACAGCTTC CACAGCAAGC ACTGCCGGGC TTCGCAGTAC 120
AAGCTGCGCA AGTCTCCCA AGTCTCCCA CCTCAAGAAG CTCACCCGGT ATTCCGACGG GCTGCTGAGG 180
TTTGCTTCT CCCAGGACTC CGGTCACGGC AAGTCCAGCT CCAAAATGGG CAAGAGCGAA 240
GACTTCTTCT ACATCAAGGT CAGCCAGAAA GCCCGGGGCT CCCATCACCC AGATTACACG 300
GCACTGTCCA GCGGGGATTT AGGGGGCCAG GCTGGGGTGG ACTTTGACCC GTCCACACCC 360
CCCAAGCTCA TGCCCTTCTC CAATCAGCTA GAAATGGTAA GCGGGGGTCG CTGGCAAGGG 420
TAAGTGGGT GGAACGCAG GAGAAAGCAA AATGGGGTG GAGAGCCTGG GGGTTCAGGG 480
GGAGTGGTGA CCTGAGCATT CAGACTCCTC AAAACCAGAG CGGCAGGGT GCCGGCGGAA 540
GCCTGTGGCC ACACCGCAGA GATCAAACGT TTCACAAAGG AATTAGAGCA TCGCTCAGTC 600
CCCCTGAAGC AGAAGTCTTG GGTCAAGCCA TAAGCAAAGA GCACAGGGGA TATGTGAGCT 660
TTTGAGTCC CACTGAAATG TAGCTGGATT GTCAACGTAG GATCCAGGCG TTTGCCAAGC 720
CTCGGGAAGG AGAGGGAGCC CTGTTCTCAT CTGGAAGCAC AGATGAAGAG GATGCAGGCC 780
GGAGTTAAC CGTTCCTC TCCTTGTTCA AGCTGCGCCT GGGGGCATCT TTGAATACAG 900
CTGCCCTGGT GTGCATTAGC TACCCAGAGA CTAGGGCCAAA GGAGGCCCCAG GCACTGAGAA 960
GCTGGAGTTT TGTCAATCCAT CAAGCCCTCG TGCGTCCCAC GAGTGGACAC TGAATCAAT 1020
ATCCAGCCCT CACACCAGCT CCCTTGCCCT TGCATAGAGC ATTCAGCTTT TCAAAATTAAG GGGCTTGTA 1140
TTTCCCTATC AGTCCCTGCT GGAATAATTAC AGTTTAAAA AAGGATCGTG ATTTGGAGTG 1200
AGGAAAGAGC CTCTTATGTT AGCCAGGTC CGTGTCCCTTG CTCCAGGCTT AATGGAAGAG 1260
ACTGTGAAGC ACTCTACCAG ATGGACCTAA AGAGGGACAG CAAGCTCGGC CAGCCTGATG 1320
AGCCTCCCAA CCGTGTAAAG AGACCTAGAG CAGGAGCCTC AAGATGGTAT TTATCACCTC 1380
GCAGTGAACA GGAAGAAAGG GTGGCAGGTT GCTATTTTCAT AGAACAAGT GCCCAAGTCG 1440
CCCTAACTTG CCCACACAG GGTGAGAGAT GACATTCAGC TGCTTCAAAG CAACAGGCAA 1500

Fig. 5A-1

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GGTCTGCTGA GACAATTGAC CAAGAGGGGT GCTGCGTGCG CTCAGAGAGC CCAGACTGGC 1560
TCAAGGTCGG CACGCGTGCC TGGGGAGGGA GGGTGCAATG CGCGCGCAGG GGAGGCATGA 1620
GTCACCGCGG TCCTTTTCCT CTACAGGGCT CCGAGAAAGG TGCAGTGAGG CCCACAGCCT 1680
TCAAGCCTGT GCTGCCACGG TCAGGAGCCA TCCTGCACTC CTCGCCGGAG AGTGCCAGCC 1740
ACCAGCTGCA CCCGCCCCCT CCAGACAAGC CCAAGGAGCA GGAGCTGAAG CCTGGCCTGT 1800
GCTCTGGGC GCTGTCAGAC TCCGGCCGGA ACTCCATGTC CAGCCTGCCC ACACACAGCA 1860
CCAGCAGCAG CTACCAGCTG GACCCGCTGG TCACACCCGT GGGACCCACA AGCCGTTTG 1920
GGGGCTCCGC CCACAACATC ACCCAGGCA TCGTCCCTCA GGACAGCAAC ATGATGAGCC 1980
TGAAGGCTCT GTCCCTCTCC GACGGAGGTA GCAAGCTGGG CCACTCGAAC AAGGCAGACA 2040
AGGGCCCCCTC GTGTGTCCGC TCCCCCATCT CCACGGACGA GTGCAGCATC CAGGAGCTGG 2100
AACAGAAGCT GTTGAGAGG GAGGCGCCCC TCCAGAAAGCT GCAGCGCAGC TTTGAGGAGA 2160
AGGAGCTTGC CTCCAGCCTG GCCTACGAGG AGCGCCCGCG TCAAGCAGGC CTCGCAGAAG AGCCAGCGCG 2220
AGGGCCCCGA GCCCAAAGGC CAGGTACTGC AGCTTCAGCA GGAGAAGCGG CAGCTCCGGC 2280
CGCAGCAGGT CCTGCACCTG AAGGAGCAGG ACCTGCTGGA GACCAAGCTC AGGTCCTACG 2340
AGGAGCTCGA GAGCCTCATG GACCAAGCTC TGGAGGAGAC CCAAGTGGGAG GTGAGGCCAC 2400
AGAGGGAGAA GACCAGCTTC GGCCCCGCGC TGGAGGAGAC CCAAGTGGGAG GTGAGGCCAC 2460
ACAGGGCTCA TGGGTTTGGG TGGTCAGCGG TTTGGCGCCA GTACCCCCCT CTCCTTCTGG 2520
TGCTGGCCAA TAGCGTGCAA ACACAGACCG CGCAGGCAAG CGGGGCTAAT GTGCTGGCTT 2580
TATCACCCAA AGAAGGGCT CCCTGCAAC CATGTTGGG GATCGACTTA CATCTGAGCT 2640
TCCTCCTGTC CCCACCATCA CCCTCATGGC TCCTAGATTT CAGTTTCCCA AGTGAGCCAT 2700
TAAATCATGA AGCCGGAAGC CAGATGACCA AGGCCAGCC AGGCTGTGG CTGACCTCCC 2760
TTCCATCAGC TCCCAGGAG CTCAGAAGAA GAACAAGCCG TGCCTGAGTT CAGGCGGGC 2820
CAGGGCCCCA AGAGAGCACA GAATGCATTT GTTGCTTTGG AGGAGGGAC TGCACCCACT 2880
AGTAAGAGGG ACCCTATTGG TGGCAGGTTT CAGTGATGGA AGTGGCCACT CCTTGCTGAA 2940
GTGTAAGTGG AACTTCTATT TGGTGAGCTG AGATGGAAAC CTAGGAGAGG AAGTAAAGAG 3000

Fig. 5A-2

TCCCCCACTC ACACACTTAC ACACTCACAC ACACTCACTC ACCCGGTCAC ACGTGGAAT 3060
GAGGCATCTG TACCTGACCG TGCTGGAGAA CCCATAAACC TCTGCATCTA TTAGTGGGAA 3120
AGCAGCTTTT CTCACCAAGC TGGTGGTCTG GATGACTCAT GAGTTCAAG CCCATCGTTG 3180
AGGCTCTTTA CATGCTCGCA CCCAGCTTGG TCTGTCCACG TGCCTGCCTC ACCCCAGTT 3240
CAGAGTCCAA ATCTCAGTCT ACACGCAAAC CCTGGGCTAT GTGCAAGTCA ACAACCAAGT 3300
GTTTAACTTG CCCACTGCTG GCAGCTGTAT CACCCCCCAT TAACACCAAT GGTATTGGTT 3360
TTGGTGTGAG CCTGATTCTT GTCATCGATG TTTATGCCCA CATCCTCTGA CCTCACCCCT 3420
GCATGCACCC AGCCCTCCTC TCTCCTGTCT ACTGGAGTAA AGACTACCTC ACAAAATCAC 3480
TGCTGTACCC AGTGACTAGT ATCATGCTGG CTTGGATGCA GAGCCCAATC CACATCTGTC 3540
AAACGAGGAA TCATTTTCTT CTCCTCTTGC TCTTCTTTCT CTATTTCCCA CCCCATATCCC 3600
CCATCAAAAT TTGGCCAAGA GCAATGATGA AAACCGAAGC CACAGGTTAG ACCCATGTGT 3660
CTCTGGATCT TGGCCATCTG GGGTCAATGG AGACCAAGGC CAGTCTGGCT GAATCTTAAG 3720
AGTGAATGAA GTCCAGAGCA TGTGGCTCTA CAGAAATGGAT TCTTGGAATC AGCCTGGAAG 3780
CCACCTTCAC ATTTCCCTTC ACAGTAGAAA TTTCCCCCTG CCTCAGTGA AACACTGCAC 3840
AGTCCTGGAG AAAATCCGAC CCTACCCAGG ATGCGTGCTT GGGACCAAGA ATTTCAATCC 3900
AAGGCCAACC CTGTATTCTAT GCCACGAAGG GAGTGACACA GTCATGGCTG AGGCATGGGC 3960
CTGGCTTTGA ACCTCAGCTT GACCACTTAT GATCCAGGTG ATTGTAAATA CATTAGCCAT 4020
GGTGGCAATG GGTATAGTG ATTAACCTGT TGGGATCAAA TCTCTACTCT TATACTTTAT 4080
ATTTTATATA TATATATATA TAATATATAT ATATATTAGC CCTCAGGCTG GTCACTTCAC 4140
CAGCTGTTTG CTATCATAAC CTCTCTGTGC CTCAGTTTCA TTGATGTAAA TTGAGGACTA 4200
CTAATAGTAC CTACTTCATC GGGTTGTAAG GAATAGATGA GCAAATGTAT GGCTTGGCAC 4260
TTAATAACAC TACAAATTAT TAGTGAAGT ATGTTTATAA TAATATACTT CTGTGTGGCT 4320
AGCGGTGGTG GCTCACGCCT GCAATCCCAG CACTTTGGGA GGCAGAGGCA GGCAGAGCAC 4380
TTGAGGTCAG GAATTCGAGA TCAGCCTGGC CAACATGAGG AAACCCCGTC TCTACTAAAA 4440
ATACAAAAAT CAGCCAGGCA TGGTGGCAGG TGCTGTAAAT CCCAGCTACT TGGGAGGCTG 4500

Fig. 5A-3

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AGGCAGGAGA ATCAGAGGGG AGGCGGAGGT TGCAGTGAGC CAAGATCAGC CCACTACACC 4560
CCAGCCTAGG TGACAAAGCG AGACTTCTCA AATAATAACA ATAAATAAT ACTATGTGTC 4620
ATTATACATG ATGATTATTA TTTTATCAT TTTACTATATA GCCTAGCTCG ATAACTGGG 4680
ARAAAGGTCA CAGCAATGTT CAGCTTACTT TCAGATTGGA CAAAGGCTGG AATGCCTAAC 4740
ACCGGGCCAC CGCATCCGGA GTGGCTTGGT TATTTTAGGC AGCTGAGCTG TCACTTCCCT 4800
GGGTAAGGAC ACTCACCTCT TGGCACTCTG TCTCCACCCC ACCCTCGGCA GTGTGCCAG 4860
AAGTCAGGCG AGATCTCCCT CCTGAAGCAG CAGCTGAAGG AGTCCCAGAC GGAGGTGAAC 4920
GCCAAGGCTA GCGAGATCCT GGGTCTCAAG GCACAGCTGA AGGACACGCG GGGCAAGCTG 4980
GAGGGCCCTG AGCTGAGGAC CCAGGACCTG GAGGCGCCCC TGGCACCAA GGGCTTGAG 5040
CTGGAGGTCT GTGAGAAATGA GCTGCAGCGC AAGAAGAACG AGCGGAGCT GCTGCGGGAG 5100
AAGGTGAACC TGCTGGAGCA GGAGCTGCAG GAGCTGCGGG CCCAGGCCGC CCTGGCCCGC 5160
GACATGGGC CGCCACCTT CCCCAGGAC GTCCCTGCCC TGCAGCGGA GCTGGAGCGG 5220
CTGCGGGCCG AGCTGCGGGA GGAGCGGCAA GGCCATGACC AGATGTCCCT GGGCTTCCAG 5280
CATGAGCGGC TCGTGTGGA GGAGGAGAAG GAGAAGTGA TTCAGTACCA GAAACAGCTG 5340
CAGCAGAGCT ACGTGGCCAT GTACCAAGCG GTACCAAGCGC TGGAGAAGG CCTGCAGCAG 5400
CTGGCACGTG GGGACAGCGC CGGGAGCCC TTGGAGGTTG ACCTGGAAGG GGCTGACATC 5460
CCCTACGAGG ACATCATAGC CACTGAGATC TGAGGGGCTG CCTGGGAAGG CGAGTCTGGG 5520
GACCTGGCAC TGGGAGGCAG GGCTCTCCCG TGCACTCCCC CTGCTCAGCA ATTCAGACCC 5580
CTCTGAGAGA CGCCACTCCC TGGACACAG ACCAGGACC CCCAGGGGA GGGCAGGATG 5640
GCCTTTCCTT CCTCTCTGA TGTCCCAGTG CTCACCCAGCC CTGCAGCCCCA CCAGACGTCA 5700
GGCCCTGACT CCTCTGGCTT TCCCAGGAGA TGGGTCCAGG GGCTGTCTG CTTTGGTTAA 5760
GGGCTCCCTA AACTTTGGCC TTTGTTCGAA ATAGATATCC TCTCCCCCTC CTCAGGGAA 5820
GGTGGCCACA GCAAGAACAG CGGCTCCCTT CCGCTTCTCA TCCCAACCTC TTTTTCCTCC 5880
TGGACACATT GGAATGCCCTT GGAATAGAA AGAAGCCATA TATGACCAGA AGCCTTGGAA 5940
CCAGCCCCAT CAGAACCTGA GCTATTTTCC TCTGGCCGCA GAGGTGTAGG GGTGGAATGA 6000

Fig. 5A-4

GCCGCGGGGA AGCTGGCTTT GAAACCTCAG GGCTGTCCCA GCCCCGGCAA GCCACAGGAA 6060
GGAGGGGAGA GACAGGCAGC CCAGCAGTGT GGAGACCCCTG CCACAGCCAG AGGAGGGCAG 6120
AGGAGAAATC CAAGGGTTGA GAGCCAGTGG CGGGTGATGG CCAGCCCCCTG GGGCCCAGCC 6180
CCTGTTTACT GGTCTTTGCA AATGGAGCT GAGCAGCCTC TGGACAGCCA GTGACCTTTG 6240
ACCTCGGTGA CCACCTCTCT TTAAGCCATA GACCCTGAGG CCTGGGCTG GGTGCTGGA 6300
AGGAGGGGTT GAAACCAACCG TGAACCAGAG GGTGTGGCTT TCCAGKCACC CTCAGGGAGC 6360
CTCCCCATCT GTCCAGCTGG GCCCAGAGGC TGGGAGTCCC TACCTGCTTC ACGTTGGCCG 6420
GCGGCTACTC TGAATGTTT TTCCCTCCCC AGAATCAAGC TTTTGCTTGA TCCAGAAGAG 6480
CCCATATCAC TAAGATGGCA TATATGTGAT CTGGGCATTT TCCTCCTCTG CCTACAGCCA 6540
GGTTTAGCGG CAAACCTTTC CCCCTTAGCA CCTTCAGGGC TGAGTTCTGG GTTTCTAGAG 6600
GTCAGGACGG CTCCTCAGAG CGCCAGGAAG CCAGAGCCCC AAGCAGGACG AAAAAGAGGC 6660
ATACACACAG CAGTGTGAAT AGCCTGGCCA CCAGCCATCC TCCCTCCACC TCAAGACCCC 6720
CATTGTCCS AGACTAAAGG ATCCAGAGAG CAGCTCCCCT TCTCAGGAGC TTGGGCAGTG 6780
CCCCAGGGAG TCCAGGGTTT CTCTGCAGAT GTGCGGAGCG GGAGGCGGTG GTAGAGAGAG 6840
ATAAAAGGTG GAGTTTCTCT GTTGTTTGGT TCAGGGATTT TATTTTAAAT TTTATGAGAC 6900
AGGGTCTTGC TCTGTCCCCC AGGCTGGAGT GCAGTGGCAT GATCATAGCT CACTGCAGCC 6960
TCATACTCCT GGGCTCAAGC AATCCTCCTG CCTCAGCCTT CCAACTAGCT GGGACTACAG 7020
GTGCGCGCCA CCGTGCCCTG CTAACCTTTC ATTTTTTTG TAGGGACGGG GTCCTCGTTT 7080
GTTGCCAAAG CTGCTCTCAA ACTTGTGGC TCAAGCAATC CACCTGCCCTT GGCCCTCCCA 7140
AGTGCTGAGA TTGCAGATGT GAGCCACCGT GCCTGGCCAG ATTTTCTCTT TATTCCTCTT 7200
TCTTTTCTCT TTTTGCTTTC TTGCTTTTC AGAAGCAAGC CAGACCTAGC AGGCTGTTCC 7260
ATGTTCTATT TTTGACTGTA GCCACAGCTG CTGTCTCAG GACAGCATCC CTTCCACAT 7320
GCCTGGCCT GCTGCCCTGCT GAGATGAGGA GGGAGCGTC TGGGAACTTG CGAGTCCAAG 7380
GCCAGTCCCC ATTTCTGCCT CGCTACCCG TGGCCCTTAG AGACCCCGAG GTAGGGGTGG 7440
GGAGATGCTT CTCTCCTTGC CCCCCGCCCT CATGGGTCCT AGCCCTTCCC TGAGTGCGGG 7500

Fig. 5A-5

18 / 80

CTGAGGCCAG AGTCACCTTT TCTGTGGCTG GCTCTACCTT CCTGTCCCTG AGGTTAAACG 7560
GTGCCCATCC TGCCATCCTC AAACGACAGA GGAGCTTTTC TGGAAATTCA AACCATTGCT 7620
CTTAGTCCCA AGCTAGGCTT AAACCTGGAA TCTACAAGCC AAAAGTCCCT CCCTGCCTGA 7680
GGCAGTACC CTCCATTGGG CACAGTCCAG ACCCAAGTCA AAGATGCCCC ATTCCCTGCG 7740
CCTCAGCCCT CAGTTCCTTC ATTTCCACCA GGCGTGCTT TGTGTGAGTT TTTCCCTCCA 7800
GTGAGACTGC CCCACGGAGA CAGAGGAAAG GGCTGGCTCC CCTCCCCAG GCTGGAGACC 7860
CCCCCAACT CCAGGAAAGA GCAGTCAGAG TCCAGTGCTC TGCCCTCAGAC GTTGCCCTGAG 7920
AAGAAGTGGC TGCCACACCC AGGGAAGGC CCTGAGGCGG AGGCTGTGCT CCGCCATGGT 7980
GTCCCGGTAC CTTCCATACA CAGAGGAGTG CAGCCTTCTC CATATCTCCA TGGCCCTGTC 8040
CCAGGCCGGC CCAGATGTGT CCCCCCAGG CCTTGTCTTA CGTCCAAGT GGCAGATGTC 8100
TTCCCTGGC TGCCACACAG CCCC GCCCA GAGTGGCCCA CCGTGGCACT AGAATGCAAG 8160
TATCCTGCGA CCTTGCAACC TCACCTTCTT GTGGTGTTT TTTCCCTGCC TGTCCAAAAG 8220
CGCCCTCACT ATTCTTGGAC CATGCCAGAT TCTGCCCTCTC TGGAAAAGAG CTCTGGACAG 8280
CAGAAGCCTC CAAGCACAGA GCCTGGCCCC AGGCCCCAGA CAGGGTGGC TTCTTGCCCT 8340
TCCCTCTGG CACGCCTGCT GGCCGACCCA CTGACCCACT CGGATGACC AACCTGCTCT 8400
GTCCCAAG GACGCCTGCA GGAGAGAGCA GCACTCCGCA TCACCTCACC AAGGATCGGA 8460
CTCTGCCCCC GGACCTGGGA ACGACTGGAC TGTCACGGGG TTCCCTCCTA GCTCTCCCAG 8520
TGAACCTCTG CCAGGCACAC ACAGCCCTTA TAGCACTGAG CTCACATGG ACTGGGATAT 8580
GGGGCATCT CTTCCCCAGA GAGGCACTCA GTGAGCCTCC TGTGCCCTGG CCCAGTCTGG 8640
GCCATCTCTT AGGTGAGACA GTTGCCCGAA ACTAAGCCAG GCCTGGCTGG AGGAGCAGCA 8700
GCTTGGGGAG AGGATTTCC CTGCAGACCT CAAGCCATCA TGCGGTGGT GCTGCCATGA 8760
CAGAGGCTGC ACCCCTGGC CAGCGGGCT GCTCACCAC CTCTGTGCA AGGTGGCCTT 8820
TGTGCTGCGC CTGCAGGCAG AGCTGGAGCC CCCAGCAGAG GCAGGCTGGG ACGGACCAGC 8880
ATCTGGAAGA TGTACATAGT TATTTTCTC TTTGTGGTTT CTGTGTTGCT TTGGTTGCT 8940
TTTGACAGCT TCATTTTATT TTTGACGTCA CTTTGTGGC ATGTAACATA TTTGTGGCAA 9000
TTTTATGTTT TTATTTATGA ATAAAGAATG CCATTCTCTA CGCCCTCT 9048

Fig. 5A-6

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TGAGGGCTTT GCTATGACCT CAGTCCCTC ACGGAGCCAC GACTGCCCTT TGCTGCCACA 60
GCCTTTCCAA GACCCTGCCC GGCCCTGCCC CATCCTCAGC CCCGAGTCAC CATGGGCAGC 120
GTCAGTAGCC TCATCTCCGG CCACAGCTTC CACAGCAAGC ACTGCCGGG ACTCGCAGTAC 180
AAGCTGCGCA AGTCTCTCCA CCTCAAGAAG CTCAACCCGGT ATTCCGACGG GCTGCTGAGG 240
TTTGGCTTCT CCCAGGACTC CGGTACGGC AAGTCCAGCT CCAAAATGGG CAAGAGCGAA 300
GACTTCTTCT ACATCAAGGT CAGCCAGAAA GCCCGGGGCT CCCATCACCC AGATTACACG 360
GCACTGTCCA GCGGGGATTT AGGGGGCCAG GCTGGGGTGG ACTTTGACCC GTCCACACCC 420
CCCAAGCTCA TGCCCTTCTC CAATCAGCTA GAAATGGCT CCGAGAAGG TGCAGTGAGG 480
CCCACAGCCT TCAAGCCTGT GCTGCCACGG TCAGGAGCCA TCCTGCACTC CTCCC GGAG 540
AGTGCCAGCC ACCAGCTGCA CCCCGCCCCT CCAGACAAGC CCAAGGAGCA GGAGCTGAAG 600
CCTGGCCTGT GCTCTGGGGC GCTGTCAGAC TCCGGCCGGA ACTCCATGTC CAGCCTGCCC 660
ACACACAGCA CCAGCAGCAG CTACCAGCTG GACCCGCTGG TCACACCCGT GGGACCCACA 720
AGCCGTTTGG GGGCTCCGC CCACAACATC ACCCAGGCA TCGTCTCTCA GGACAGCAAC 780
ATGATGAGCC TGAAGGCTCT GTCTTCTTCC GACGGAGGTA GCAAGCTGGG CCACTCGAAC 840
AAGGCAGACA AGGCCCCCTC GTGTGTCCGC TCCCCCATCT CCACGGACGA GTGCAGCATC 900
CAGGAGCTGG AGCAGAAAGT GTTGGAGAGG GAGGCGCCCC TCCAGAAGCT GCAGCGCAGC 960
TTTGAGGAGA AGGAGCTTGC CTCCAGCCTG GCCTACGAGG AGCGGCCCGG GCGCTGCAGG 1020
GACGAGCTGG AGGGCCCGGA GCCCAAAGGC GGCAACAAGC TCAAGCAGGC CTCGCAGAAG 1080
AGCCAGCGCG CGCAGCAGGT CCTGCACCTG CAGGTAAGTGC AGCTTCAGCA GGAGAAGCGG 1140
CAGCTCCGGC AGGAGCTCGA GAGCCTCATG AAGGAGCAGG ACCTGCTGGA GACCAAGCTC 1200
AGGTCCTACG AGAGGGAGAA GACCAGCTTC GGCCCCCGCG TGGAGGAGAC CCAGTGGGAG 1260
GTGTGCCAGA AGTCAGGCGA GATCTCCCTC CTGAAGCAGC AGCTGAAGGA GTCCAGACG 1320
GAGGTGAACG CCAAGGCTAG CGAGATCCTG GGTCTCAAGG CACAGCTGAA GGACACGCGG 1380
GGCAAGCTGG AGGGCCTGGA GCTGAGGACC CAGGACCTGG AGGGCGCCCT GCGCACCAAG 1440
GGCCTGGAGC TGGAGGTCTG TGAGAATGAG CTGCAGCGCA AGAAGAACGA GCGGAGCTG 1500

Fig. 5B-1

20 / 80

CTGCGGGAGA AGGTGAACCT GCTGGAGCAG GAGCTGCAGG AGCTGCGGGC CCAGGCCGCC 1560
CTGGCCCCGG ACATGGGGCC GCCACCTTC CCCGAGGACG TCCCTGCCCT GCAGCGGAG 1620
CTGGAGCGGC TGGCGGGCGA GCTGCGGGAG GAGCGGCAAG GCCATGACCA GATGTCTCTCG 1680
GGCTTCCAGC ATGAGCGGCT CGTGTGGAAG GAGGAGAAGG AGAAGGTGAT TCAGTACCAG 1740
AAACAGCTGC AGCAGAGCTA CGTGGCCATG TACCAGCGGA ACCAGCGCTT GGAGAAGGCC 1800
CTGCAGCAGC TGGCACGTGG GGACAGCGCC GGGAGGCCCT TGGAGGTTGA CCTGGAAGGG 1860
GCTGACATCC CCTACGAGGA CATCATAGCC ACTGAGATCT GAGGGGCTGC CTGGGAAGGC 1920
GAGTCTGGG ACCTGGCACT GGGAGCAGG GCTCTCCCGT GCATCCCCC TGCTCAGCAA 1980
TTCAGACCCC TCTGAGAGAC GGCACCTCCCT GGGACACAGA CCCAGGACCC CCGAGGGAG 2040
GGCAGGATGG CCTTTCCTTC CCTCTCTGAT GTCCCAGTGC TCACCAAGCCC TGCAGCCCCAC 2100
CAGACGTCAG GCCCTGACTC CTCTGGCTTT CCCAGGAGAT GGGTCCAGGG GTCGTCTGC 2160
TTTGTTAAG GGCTCCCTAA ACTTTGGCCT TTGTTGAAA TAGATACTCT CTCCCCCTCC 2220
TCCAGGGAAG GTGGCCACAG CAAGAACAGC GGCTCCCCCTC CGCTTCTCAT CCCAACCTCT 2280
TTTTCCCTCCT GGACACATTG GAATGCCCTTG GAAATAGAAA GAAGCCATAT ATGACCAGAA 2340
GCCTTGGAAC CAGCCCCATC AGAACCTGAG CTATTTTCCT CTGGCCGCAG AGGTGTAGGG 2400
GTGGAATGAG CCGCGGGGAA GCTGGCTTTG AAACCTCAGG GCTGTCCCAG CCCC GGCAAG 2460
CCACAGGAAG GAGGGGAGAG ACAGGCAGCC CAGCAGTGTG GAGACCCCTGC CACAGCCAGA 2520
GGAGGGCAGA GGGAGAATCC AAGGGTTGAG AGCCAGTGGC GGTGATGGC CAGCCCCCTGG 2580
GGCCAGCCC CTGTTTACTG GTTCTTGCAA ATGGGAGCTG AGCAGCCTCT GGACAGCCAG 2640
TGACCTTTGA CCTCGGTGAC CACTCTTCTT TAAGCCATAG ACCCTGAGGC CCTGGGCTGG 2700
GTGCTGGGAA GGGAGGGTTG AAACCACCGT GAACCAGAGG GTGTGGCTTT CCAGGCACCC 2760
TCAGGGAGCC TCCCCATCTG TCCAGCTGGG GCCAGAGGCT GGGAGTCCCT ACCTGCTTCA 2820
CGTTGGCCGG CGGCTACTCT GGAATGTTTT TCCCTCCCCA GAATCAAGCT TTTGCTTGAT 2880
CCAGAAGAGC CCATATCACT AAGATGGCAT ATATGTGATC TGGGCATTTT CCTCCTCTGC 2940
CTACAGCCAG GTTAGCGG AAACCTTTCC CCCTTAGCAC CTTCAGGGCT GAGTCTCTGG 3000

Fig. 5B-2

TTTCTAGAG TCAGGACGGC TCCTCAGAGC GCCAGGAAGC CAGAGCCCCA AGCAGGACGA 3060
AAAAGAGGCA TACACACAGC AGTGTAATA GCCTGGCCAC CAGCCATCCT CCCTCCACCT 3120
CAAGACCCC ATTTGTCCCA GACTAAAGGA TCCAGAGAGC AGCTCCCTTT CTCAGGAGCT 3180
TGGGCAGTGC CCCAGGGAGT CCAGGGTTTC TCTGCAGATG TCGGAGCGG GAGGCGTGG 3240
TAGAGAGAGA TAAAAGGTGG AGTTCTCTG TTGTTGGTT CAGGGATTTT ATTTTAAAT 3300
TTATGAGACA GGGTCTTGCT CTGTCCCCA GGCTGGAGTG CAGTGGCATG ATCATAGCTC 3360
ACTGCAGCCT CATACTCCTG GGCTCAAGCA ATCCTCCTGC CTCAGCCTTC CAACFAGCTG 3420
GGACTACAGG TCGCGCCAC CGTGCTGGC TAACTTTTCA TTTTCTTGT AGGACGGG 3480
TCTCGTTTG TTGCCAAAGC TGGTCTCAA CTGTGGCCT CAAGCAATCC ACCTGCCCTG 3540
GCCTCCCAA GTGCTGAGAT TGCAGATGTG AGCCACCGTG CCTGGCCAGA TTTTCTCTTT 3600
ATTCTTCTTT CTTTTTCTTT TTTGCTTTCT TGCTTTTCA GAAGCAAGCC AGACCTAGCA 3660
GGCTGTTCCA TGTCTATTT TTGACTGTAG CCACAGCTGC TGTCTCAGG ACAGCATCCC 3720
TTCCCAACATG CCTGCGCCTG CTGCCCTGCTG AGATGAGGAG GGGAGCGTCT GGAACCTTGC 3780
GAGTCCAAGG CCAGTCCCCA TTTCTGCCCTC GCTCACCGCT GGCCCTTAGA GACCCCGAGG 3840
TAGGGGTGG GAGATGCTTC TCTCCTTGCC CCCCGCCCTC ATGGTCCCTA GCCCTTCCCT 3900
GAGTGCGGC TGAGGCCAGA GTCACCTTTT CTGTGGCTGG CTCTACCTTC CTGTCCCTGA 3960
GGTTAAACGG TGCCCATCCT GCCATCCTCA AACGACAGAG GAGCTTTCTT GGAATTCAA 4020
ACCATTGCTC TTAGTCCCAA GCTAGGCTTA AACCTGGAAT CTACAAGCCA AAAGTCCCTC 4080
CCTGCCCTGAG GGCAGTACCC TCCATTGGG ACAGTCCAGA CCCAAGTCAA AGATGCCCCA 4140
TTCCCTTGCGC CTCAGCCCTC AGTTCCCTCA TTTCCACCAG GCCGTGCCCTT GTTTGAGTTT 4200
TTCCCTCCAG TGAGACTGCC CCACGGAGAC AGAGGAAAGG GCTGGCTCCC CCTCCCCAGG 4260
CTGGAGACCC CCCCCTCCTC CAGGAAAGAG CAGTCAGAGT CCAGTGTCTT GCCTCAGACG 4320
TTGCCCTGAGA AGAAGTGGCT GCCACACCCA GGGGAAGGCC CTGAGGCGGA GGCTGTGCTC 4380
CGCCATGGTG TCCCGGTACC TTCCATACAC AGAGGAGTGC AGCCTTCTCC ATATCTCCAT 4440
GGCCCTGTCC CAGGCCGGCC CAGATGTGTC CCCCCCAGGC CTTGTCTTAC GTCCAAGGTG 4500

Fig. 5B-3

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GCAGATGTCT TCCCTGGGCT GCCACCAAGCC CCCGCCCCAG AGTGGCCAC CGTGGCACTA 4560
GAATGCAAGT ATCCTGCGAC CTTGCAACCT CACCTTCCTG TGGGTGTTCT TTCCTGCCCT 4620
GTCCAAAAGC GCCCTCACTA TTCTTGGACC ATGCCAGATT CTGCCCTCTCT GGAAGAGGC 4680
TCTGGACAGC AGAAGCCTCC AAGCACAGAG CCTGGCCCCA GGCCCCAGAC AGGTGGGCT 4740
TCCTGCCCTT CCCTCTGGC ACGCTGCTG GCGGACCCAC TGACCCACTC GGATGGACCA 4800
ACCTGCTCTG TCCCCAAAGG ACGCTGCAG GAGAGAGCAG CACTCCGCAT CACCTCACCA 4860
AGGATCGGAC TCTGCCCCCTG GACCTGGAA CCACTGGACT GTCACGGGT TCCCTCCTAG 4920
CTCTCCAGT GAACCTCTGC CAGGCACACA CAGCCCTAT AGCACTGAG TCACATGGA 4980
CTGGGATATG GGGCATCTC TTCCCCAGAG AGGCACTCAG TGAGCCTCCT TGCCCTGGCC 5040
CCAGTCTGG CCATCTCTTA GTGAGACAG TTGCCCCGAAA CTAAGCCAGG CCTGGCTGGA 5100
GGAGCAGCAG CTTGGGGAGA GGGATTCCC TGCAGACCTC AAGCCATCAT GCGGTGGTG 5160
CTGCCATGAC AGAGGCTGCA CCCCTGGCC AGCGGGCTG CTCACCCACC TCTTGTGCAA 5220
GGTGGCCTT GTGCTGCGCC TGCAGGCAGA GCTGGAGCCC CCAGCAGAG CAGGCTGGGA 5280
CGGACCAGCA TCTGGAAGAT GTACATAGTT ATTTTCTCT TGTGGTTTC TTGTTTGGTT 5340
TGGTTTGCTT TTGACAGCTT CATTTATTT TTGACGTCAC TTTTGGCCA TGTAACATAT 5400
TTGTGGCAAT TTTATGTTTT TATTTATGAA TAAAGAATGC CATTTCTCAC GCCCTCTAAA 5460
AAAAAAAAA AAAAAAAAAA AAAAAAAAAA AA 5492

Fig. 5B-4

ATGGGCAGCG TCAGTAGCCT CATCTCCGGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCTCTCCAC CTCAAGAAGC TCAACCCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GGTACCGGCA AGGCCATGAC CAGATGTCCT 180
CGGGCTTCCA GCATGAGCGG CTCGTGTGGA AGGAGGAGAA GGAGAAGGTG ATTCAGTACC 240
AGAAACAGCT GCAGCAGAGC TACGTGGCCA TGTACCAGCG GAACCAAGCG CTGGAGAAGG 300
CCCTGCAGCA GCTGGCACGT GGGGACAGCG CCGGGGAGCC CTTGGAGGTT GACCTGGAAG 360
GGGCTGACAT CCCCTACGAG GACATCATAG CCACTGAGAT CTGA 404

Fig. 5C

ATGGGCAGCG TCAGTAGCCT CATCTCCGGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCTCTCCAC CTCAAGAAGC TCAACCCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GGTACCGGCA AGTCCAGCTC CAAAATGGGC 180
AAGAGCGAAG ACTTCTTCTA CATCAAGGTC AGCCAGAAAG CCCGGGGCTC CCATCACCCA 240
GATTACACGG CACTGTCCAG CGGGGATTTA GGGGGCCAGG CTGGGGTGA CTTTGACCCG 300
TCCACACCCC CCAAGCTCAT GCCCTTCTCC AATCAGCTAG AAATGGGCTC CGAGAAGGT 360
GCAGTGAGGC CCACAGCCTT CAAGCCTGTG CTGCCACGGT CAGGAGCCAT CCTGCACTCC 420
TCCCCGGAGA GTGCCAGCCA CCAGCTGCAC CCCGCCCTC CAGACAAGCC CAAGGAGCAG 480
GAGCTGAAGC CTGGCCTGTG CTCGTGGGCG CTGTCAGACT CCGGCCGGAA CTCATGTCC 540
AGCCTGCCCC CACACAGCGC CGGGGAGCCC TTGGAGGTTG ACCTGGAAGG GGCTGACATC 600
CCCTACGAGG ACATCATAGC CACTGAGATC TGA 633

Fig. 5D

ATGGGCAGCG TCAGTAGCCT CATCTCCGGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCTCTCCAC CTCAAGAAGC TCAACCCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GGTACCGGCA AGTCCAGCTC CAAAATGGGC 180
AAGAGCGAAG ACTTCTTCTA CATCAAGGTC AGCCAGAAAG CCCGGGGCTC CCATCACCCA 240
GATTACACGG CACTGTCCAG CGGGGATTTA GGGGGCCAGG CTGGGGTGGG CTTTGACCCG 300
TCCACACCCC CCAAGCTCAT GCCCTTCTCC AATCAGCTAG AAATGGGCTC CGAGAAAGGT 360
GCAGTGAGGC CCACAGCCTT CAAGCCTGTG CTGCCACGGT CAGGAGCCAT CCTGCACCTC 420
TCCCCGGAGA GTGCCAGCCA CCAGCTGCAC CCCGCCCTC CAGACAAGCC CAAGGAGCAG 480
GAGCTGAAGC CTGGCCTGTG CTCTGGGGCG CTGTCAAGCT CCGGCCGGAA CTCCTATGTC 540
AGCCTGCCCC CACACAGCAC CAGCAGCAGC TACCAGCTGG ACCCGCTGGT CACACCCGTG 600
GGACCCACAA GCCGTTTGG GGGCTCCGCC CACAACATCA CCCAGGGCAT CGTCCCTCCAG 660
GACAGCAACA TGATGAGCCT GAAGGCTCTG TCCTTCTCCG ACGGAGTAG CAAGCTGGGC 720
CACTCGAACA AGGCAGACAA GGGCCCCTCG TGTGTCCGCT CCCCCATCTC CACGGACGAG 780
TGCAGCATCC AGGAGCTGGA GCAGAACTG TTGGAGAGGG AGGGCGCCCT CCAGAAGCTG 840
CAGCGCAGCT TTGAGGAGAA GGAGCTTGCC TCCAGCCTGG CCTACGAGGA GCGGCCGCGG 900
CGCTGCAGGG ACGAGCTGGA GGGCCCAGG CCCAAAGCGG GCAACAAGCT CAAGCAGGCC 960
TCGCAGAAGA GCCAGCGCGC GCAGCAGGTC CTGCACCTGC AGGTACTGCA GCTTCAGCAG 1020
GAGAAAGCGC AGCTCCGGCA GGAGCTCGAG AGCCTCATGA AGGAGCAGGA CCTGCTGGAG 1080
ACCAAGCTCA GGTCTTACGA GAGGGAGAA ACCAGCTTCG GCCCCGCGCT GGAGGAGACC 1140
CAGTGGGAGG TGTGCCAGAA GTCAGGCGAG ATCTCCCTCC TGAAGCAGCA GCTGAAGGAG 1200
TCCCAGACGG AGGTGAACGC CAAGGCTAGC GAGATCCTGG GTCTCAAGGC ACAGCTGAAG 1260
GACACGCGGG GCAAGCTGGA GGGCCTGGAG CTGAGGACCC AGGACCTGGA GGGCGCCCTG 1320
CGCACCAAGG GCCTGGAGCT GGAGGTCTGT GAGAATGAGC TGCAGCGCAA GAAGAACGAG 1380
GCGGAGCTGC TGCGGGAGAA GCATGAGCGG CTCGTGTGGA AGGAGGAGAA GGAGAAAGGTG 1440

Fig. 5E-1

25 / 80

ATTGAGTACC AGAAACAGCT GCAGCAGAGC TACGTGGCCA TGTACCAGCG GAACCAGCGC 1500
CTGGAGAAGG CCCTGCAGCA GCTGGCACGT GGGACACAGC CCGGGAGGCC CTTGGAGGTT 1560
GACCTGGAAG GGGCTGACAT CCCCTACGAG GACATCATAG CCACTGAGAT CTGA
1614

Fig. 5E-2

ATGGGCAGCG TCAGTAGCCT CATCTCCGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCCTCCAC CTCAAGAAAG TCAACCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GTTCACGGCA AGTCCAGCTC CAAAATGGGC 180
AAGAGCGAAG ACTTCTTCTA CATCAAGGTC AGCCAGAAAG CCCGGGGCTC CCATCACCCA 240
GATTACACGG CACTGTCCAG CGGGATTTA GGGGCCCAGG CTGGGTGGA CTTTGACCCG 300
TCCACACCCC CCAAGCTCAT GCCCTTCTCC AATCAGCTAG AAATGGGCTC CGAGAAGGCT 360
GCAGTGAGGC CCACAGCCTT CAAGCCTGTG CTGCCACGGT CAGGAGCCAT CCTGCACCTC 420
TCCCCGGAGA GTGCCAGCCA CCAGCTGCAC CCCGCCCTC CAGACAAGCC CAAGGAGCAG 480
GAGCTGAAGC CTGGCCTGTG CTCTGGGCG CTGTCAGACT CCGCCCGGAA CTCCATGTCC 540
AGCCTGCCCCA CACACAGCAC CAGCAGCAGC TACCAGCTGG ACCCGCTGGT CACACCCGTG 600
GGACCCACAA GCCGTTTGG GGGCTCCGCC CACAACATCA CCCAGGGCAT CGTCCCTCCAG 660
GACAGCAACA TGATGAGCCT GAAGGCTCTG TCCTTCTCCG ACGGAGTAG CAAGCTGGGC 720
CACTCGAACA AGGCAGACAA GGGCCCCTCG TGTGTCCGCT CCCCATCTC CACGGACGAG 780
TGCAGCATCC AGGAGCTGGA GCAGAACTG TTGGAGAGGG AGGGCGCCCT CCAGAAGCTG 840
CAGCGCAGCT TTGAGGAGAA GGAGCTTGCC TCCAGCCTGG CCTACGAGGA GCGGCCCGG 900
CGCTGCAGG ACGAGCTGGA GGGCCCAGG CCCAAAGCG GCAACAAGCT CAAGCAGGCC 960
TCGCAGAAGA GCCAGCGCGC GCAGCAGGTC CTGCACCTGC AGGTACTGCA GCTTCAGCAG 1020

Fig. 5F-1

GAGAAAGCGG AGCTCCGGCA GGAGCTCGAG AGCCTCATGA AGGAGCAGGA CCTGCTGGAG 1080
ACCAAGCTCA GGTCTTACGA GAGGGAGAA ACCAGCTTCG GCCCCGCGCT GGAGGAGACC 1140
CAGTGGGAGG TGTGCCAGAA GTCAGGCGAG ATCTCCCTCC TGAAGCAGCA GCTGAAGGAG 1200
TCCCAGACGG AGGTGAACGC CAAGGCTAGC GAGATCCTGG GTCTCAAGGC ACAGCTGAAG 1260
GACACGCGG GCAAGCTGGA GGGCCTGGAG CTGAGGACCC AGGACCTGGA GGGCGCCCTG 1320
CGCACCAAG GCCTGGAGCT GGAGGTCTGT GAGAATGAGC TGCAGCAGAG CTACGTGGCC 1380
ATGTACCAGC GGAACCAAGC CCTGGAGAA GGCCTGCAGC AGCTGGCAGC TGGGGACAGC 1440
GCCGGGGAGC CCTTGGAGGT TGACCTGGAA GGGGCTGACA TCCCCTACGA GGACATCATA 1500
GCCACTGAGA TC 1512

Fig. 5F-2

ATGGGCAGCG TCAGTAGCCT CATCTCCGGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCTTCCAC CTCAAGAAGC TCAACCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GGTCACGGCA AGTCCAGCTC CAAAATGGGC 180
AAGAGCGAAG ACTTCTTCTA CATCAAGGTC AGCCAGAAAG CCCGGGGCTC CCATCACCCA 240
GATTACACGG CACTGTCCAG CGGGGATTTA GGGGGCCAGG CTGGGGTGGA CTTTGACCCG 300
TCCACACCCC CCAAGCTCAT GCCCTTCTCC AATCAGCTAG AAATGGGCTC CGAGAAGGT 360
GCAGTGAGGC CCACAGCCTT CAAGCCTGTG CTGCCACGGT CAGGAGCCAT CCTGCACTCC 420
TCCCCGGAGA GTGCCAGCCA CCAGCTGCAC CCGCCCCCTC CAGACAAGCC CAAGGAGCAG 480
GAGCTGAAGC CTGGCCTGTG CTCTGGGGCG CTGTCAGACT CCGGCCGGAA CTCCATGTCC 540
AGCCTGCCCC CACACAGCAC CAGCAGCAGC TACCAGCTGG ACCCGCTGGT CACACCCGTG 600
GGACCCACAA GCCGTTTGG GGGCTCCGCC CACAACATCA CCCAGGGCAT CGTCTCTCCAG 660

Fig. 5G-1

27 / 80

GACAGCAACA TGATGAGCCT GAAGGCTCTG TCCTTCTCCG ACGGAGGTAG CAAGCTGGGC 720
CACTCGAACA AGGCAGACAA GGGCCCCTCG TGTGTCCGCT CCCCATCTC CACGGACGAG 780
TGCAGCATCC AGGAGCTGGA GCAGAACTG TTGGAGAGGG AGGGCGCCCT CCAGAAGCTG 840
CAGCGCAGCT TTGAGGAGAA GGAGCTTGCC TCCAGCCTGG CCTACGAGGA GCGGCCGCGG 900
CGCTGCAGGG ACGAGCTGGA GGGCCCAGG CCAAAAGCG GCAACAAGCT CAAGCAGGCC 960
TCGCAGAAGA GCCAGCGGC GCAGCAGGTC CTGCACCTGC AGGTACTGCA GCTTCAGCAG 1020
GAGAAAGCGC AGCTCCGGCA GGAGCTCGAG AGCCTCATGA AGGAGCAGGA CCTGCTGGAG 1080
ACCAAGCTCA GGTCTACGA GAGGAGAAG ACCAGCTTCG GCCCCGCGCT GGAGGAGACC 1140
CAGTGGGAGG TGTGCCAGAA GTCAGGCGAG ATCTCCCTCC TGAAGCAGCA GCTGAAGGAG 1200
TCCCAGACGG AGGTGAACGC CAAGGCTAGC GAGATCCTGG GTCTCAAGGC ACAGCTGAAG 1260
GACACGCGGG GCAAGCTGGA GGGCCTGGAG CTGAGGACCC AGGACCTGGA GGGCGCCCTG 1320
CGCACCAAGG GCCTGGAGCT GGAGGTCTGT GAGAAATGAGC TGCAGCGCAA GAAGAACGAG 1380
GCGGAGCTGC TCGGGAGAA GGTGAACCTG CTGGAGCGGC TCGGGGCCGA GCTGCGGGAG 1440
GAGCGGCAAG GCCATGACCA GATGTCCTCG GGCTTCCAGC ATGAGCGGCT CGTGTGGAAG 1500
GAGGAGAAGG AGAAGGTGAT TCAGTACCAG AAACAGCTGC AGCAGAGCTA CGTGCCCATG 1560
TACCAGCGGA ACCAGCGCCT GGAGAAAGCC CTGCAGCAGC TGGCACGTGG GGACAGCGCC 1620
GGGAGGCCCT TGGAGGTTGA CCTGGAAGGG GCTGACATCC CCTACGAGGA CATCATAGCC 1680
ACTGAGATCT GA 1692

Fig. 5G-2

ATGGGCAGCG TCAGTAGCCT CATCTCCGGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCCTCCAC CTCAGAAGC TCAACCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GGTCAACGGCA AGTCCAGCTC CAAAATGGGC 180

Fig. 5H-1

28 / 80

AAGAGCGAAG ACTTCTTCTA CATCAAGGTC AGCCAGAAAG CCCGGGGCTC CCATCACCCA 240
GATTACACGG CACTGTCCAG CGGGGATTTA GGGGGCCAGG CTGGGGTGA CTTTGACCCG 300
TCCACACCCC CCAAGCTCAT GCCCTTCTCC AATCAGCTAG AATGGGCTC CGAGAAGGT 360
GCAGTGAGGC CCACAGCCTT CAAGCCTGTG CTGCCACGGT CAGGAGCCAT CCTGCACTCC 420
TCCCCGGAGA GTGCCAGCCA CCAGCTGCAC CCCGCCCTC CAGACAAAGC CAAGGAGCAG 480
GAGCTGAAGC CTGGCCTGTG CTCTGGGCG CTGTCAGACT CCGGCCGGAA CTCCATGTCC 540
AGCCTGCCCC CACACAGCAC CAGCAGCAGC TACCAGCTGG ACCCGCTGGT CACACCCGTG 600
GGACCCACAA GCCGTTTGG GGGCTCCGC CACAACATCA CCCAGGGCAT CGTCTCCAG 660
GACAGCAACA TGATGAGCCT GAAGGCTCTG TCCTTCTCCG ACGGAGGTAG CAAGCTGGGC 720
CACTCGAACA AGGCAGACAA GGGCCCCCTCG TGTGTCCGT CCCCCATCTC CACGGACGAG 780
TGCAGCATCC AGGAGCTGGA GCAGAAGCTG TTGGAGAGGG AGGGCGCCCT CCAGAAGCTG 840
CAGCGCAGCT TTGAGGAGAA GGAGCTTGCC TCCAGCCTGG CCTACGAGGA GCGGCCGCGG 900
CGCTGCAGGG ACGAGCTGGA GGGCCCCGAG CCCAAAGCG GCAACAAGCT CAAGCAGGCC 960
TCGCAGAAGA GCCAGCGCGC GCAGCAGGTC CTGCACCTGC AGTACTGCA GCTTCAGCAG 1020
GAGAACGGC AGTCCGGCA GGAGCTCGAG AGCCTCATGA AGGAGCAGGA CCTGTGGAG 1080
ACCAAGCTCA GGTCTACGA GAGGGAGAA ACCAGCTTCG GCCCCGCGCT GGAGGAGACC 1140
CAGTGGGAGG TGTGCCAGAA GTCAGGCGAG ATCTCCCTCC TGAAGCAGCA GCTGAAGGAG 1200
TCCCAGACGG AGGTGAACGC CAAGGCTAGC GAGATCCTGG GTCTCAAGGC ACAGCTGAAG 1260
GACACGCGGG GCAAGCTGGA GGGCCTGGAG CTGAGGACCC AGGACCTGGA GGGCGCCCTG 1320
CGCACCAAGG GCCTGGAGCT GGAGGTCTGT GAGAAATGAGC TGCAGCGCAA GAAGAACGAG 1380
GCGGAGCTGC TGCGGGAGAA GGTGAACCTG CTGGAGCAGG AGCTGCAGGA GCTGCGGGCC 1440
CAGGCCGCC TGGCCCGCA CATGGGCGG CCACCTTCC CCGAGGACGT CCCTGCCCTG 1500
CAGCGGGAGC TGGAGCGGCT CGTGTGGAAG GAGGAGAAGG AGAAGTGAT TCAGTACCAG 1560
AAACAGCTGC AGCAGAGCTA CGTGGCCATG TACCAGCGGA ACCAGCGCCT GGAGAAGGCC 1620
CTGCAGCAGC TGGCACGTGG GGACAGCGCC GGGAGCCCT TGGAGTTGA CCTGGAAGGG 1680
GCTGACATCC CCTACGAGGA CATCATAGCC ACTGAGATCT GA 1722

Fig. 5H-2

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ATGGGCAGCG TCAGTAGCCT CATCTCCGGC CACAGCTTCC ACAGCAAGCA CTGCCGGGCT 60
TCGCAGTACA AGCTGCGCAA GTCCTCCAC CTCAAGAAAGC TCAACCCGGTA TTCCGACGGG 120
CTGCTGAGGT TTGGCTTCTC CCAGGACTCC GGTCAACGGCA AGTCCAGCTC CAAAATGGGC 180
AAGAGCGAAG ACTTCTTCTA CATCAAGGTC AGCCAGAAAG CCCGGGGCTC CCATCACCCA 240
GATTACACGG CACTGTCCAG CGGGATTTA GGGGCCCAGG CTGGGGTGA CTTTGACCCG 300
TCCACACCCC CCAAGCTCAT GCCCTTCTCC AATCAGCTAG AAATGGGCTC CGAGAAGGT 360
GCAGTGAGGC CCACAGCCTT CAAGCCTGTG CTGCCACGGT CAGGAGCCAT CCTGCACTCC 420
TCCCCGGAGA GTGCCAGCCA CCAGCTGCAC CCCGCCCTC CAGACAAGCC CAAGGAGCAG 480
GAGCTGAAGC CTGGCCTGTG CTCTGGGGCG CTGTCAGACT CCGGCCGGAA CTCCATGTCC 540
AGCCTGCCCCA CACACAGCAC CAGCAGCAGC TACCAGCTGG ACCCGCTGGT CACACCCGTG 600
GGACCCACAA GCCGTTTGG GGGCTCCGCC CACAACATCA CCCAGGGCAT CGTCCTCCAG 660
GACAGCAACA TGATGAGCCT GAAGGCTCTG TCCTTCTCCG ACGGAGTAG CAAGCTGGGC 720
CACTCGAACA AGGCAGACAA GGGCCCCTCG TGTGTCCGCT CCCCATCTC CACGGACGAG 780
TGCAGCATCC AGGAGCTGGA GCAGAACTG TTGGAGAGGG AGGGCGCCCT CCAGAAGCTG 840
CAGCGCAGCT TTGAGGAGAA GGAGCTTGCC TCCAGCCTGG CCTACGAGGA GCGGCCGCGG 900
CGCTGCAGGG ACGAGCTGGA GGGCCCAGG CCCAAGGCG GCAACAAGCT CAAGCAGGCC 960
TCGCAGAAGA GCCAGCGCGC GCAGCAGGTC CTGCACCTGC AGGTACTGCA GCTTCAGCAG 1020
GAGAAGCGGC AGCTCCGGCA GGAGCTCGAG AGCCTCATGA AGGAGCAGGA CCTGCTGGAG 1080
ACCAAGCTCA GGTCTACGA GAGGAGAAG ACCAGCTTCG GCCCCGCGCT GGAGGAGACC 1140
CAGTGGGAGG TGTGCCAGAA GTCAGGCGAG ATCTCCCTCC TGAAGCAGCA GCTGAAGGAG 1200
TCCCAGACGG AGGTGAACGC CAAGGCTAGC GAGATCCTGG GTCTCAAGGC ACAGCTGAAG 1260
GACACGCGGG GCAAGCTGGA GGGCCTGGAG CTGAGGACCC AGGACCTGGA GGGCGCCCTG 1320
CGCACCAAGG GCCTGGAGCT GGAGGTCTGT GAGAAATGAGC TGCAGCGCAA GAAGAACGAG 1380
GCGGAGCTGC TCGGGGAGAA GGTGAACCTG CTGGAGCAGG AGCTGCAGGA GCTGCGGGCC 1440
CAGGCCGCC TGGCCCCGCA CATGGGGCCG CCCACCTTCC CCGAGGACGT CCCTGCCCTG 1500

Fig. 5I-1

CAGCGGAGC TGGAGCGGCT GCGGGCCGAG CTGCGGGAGG AGCGGCAAGG CCATGACCAG 1560
ATGTCCTCGG GCTTCCAGCA TGAGCGGCTC GTGTGGAAGG AGGAGAAGGA GAAGGTGATT 1620
CAGTACCAGA AACAGCTGCA GCAGAGCTAC GTGGCCCATGT ACCAGCGGAA CCAGCGCCTG 1680
GAGAAGGCC TGCAGCAGCT GGCACGTGGG GACAGCGCCG GGGAGCCCTT GGAGGTTGAC 1740
CTGGAAGGG CTGACATCCC CTACGAGGAC ATCATAGCCA CTGAGATCTG A 1791

Fig. 5I-2

MET GLY SER VAL SER SER LEU ILE SER GLY HIS SER PHE HIS SER LYS
1 5 10 15
HIS CYS ARG ALA SER GLN TYR LYS LEU ARG LYS SER SER HIS LEU LYS
20 25 30
LYS LEU ASN ARG TYR SER ASP GLY LEU LEU ARG PHE GLY PHE SER GLN
35 40 45
ASP SER GLY HIS GLY LYS SER SER LYS MET GLY LYS SER GLU ASP
50 55 60
PHE PHE TYR ILE LYS VAL SER GLN LYS ALA ARG GLY SER HIS HIS PRO
65 70 75 80
ASP TYR THR ALA LEU SER SER GLY ASP LEU GLY GLY GLN ALA GLY VAL
85 90 95
ASP PHE ASP PRO SER THR PRO PRO LYS LEU MET PRO PHE SER ASN GLN
100 105 110
LEU GLU MET GLY SER GLU LYS GLY ALA VAL ARG PRO THR ALA PHE LYS
115 120 125
PRO VAL LEU PRO ARG SER GLY ALA ILE LEU HIS SER SER PRO GLU SER
130 135 140

Fig. 5J-1

ALA SER HIS GLN LEU HIS PRO ALA PRO PRO ASP LYS PRO LYS GLU GLN	145	150	155	160
GLU LEU LYS PRO GLY LEU CYS SER GLY ALA LEU SER ASP SER GLY ARG	165	170	175	
ASN SER MET SER SER LEU PRO THR HIS SER SER THR SER SER TYR GLN	180	185	190	
LEU ASP PRO LEU VAL THR PRO VAL GLY PRO THR SER ARG PHE GLY GLY	195	200	205	
SER ALA HIS ASN ILE THR GLN GLY ILE VAL LEU GLN ASP SER ASN MET	210	215	220	
MET SER LEU LYS ALA LEU SER PHE SER ASP GLY GLY SER LYS LEU GLY	225	230	235	240
HIS SER ASN LYS ALA ASP LYS GLY PRO SER CYS VAL ARG SER PRO ILE	245	250	255	
SER THR ASP GLU CYS SER ILE GLN GLU LEU GLU LYS LEU LEU GLU	260	265	270	

Fig. 5J-2

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ARG GLU GLY ALA LEU GLN LYS LEU GLN ARG SER PHE GLU GLU LYS GLU
275 280 285

LEU ALA SER SER LEU ALA TYR GLU GLU ARG PRO ARG ARG CYS ARG ASP
290 295 300

GLU LEU GLU GLY PRO GLU PRO LYS GLY GLY ASN LYS LEU LYS GLN ALA
305 310 315 320

SER GLN LYS SER GLN ARG ALA GLN GLN VAL LEU HIS LEU GLN VAL LEU
325 330 335

GLN LEU GLN GLN GLU LYS ARG GLN LEU ARG GLN GLU LEU GLU SER LEU
340 345 350

MET LYS GLU GLN ASP LEU LEU GLU THR LYS LEU ARG SER TYR GLU ARG
355 360 365

GLU LYS THR SER PHE GLY PRO ALA LEU GLU GLU THR GLN TRP GLU VAL
370 375 380

CYS GLN LYS SER GLY GLU ILE SER LEU LEU LYS GLN GLN LEU LYS GLU
385 390 395 400

Fig. 5J-3

SER	GLN	THR	GLU	VAL	ASN	ALA	LYS	ALA	SER	GLU	ILE	LEU	GLY	LEU	LYS
			405						410					415	
ALA	GLN	LEU	LYS	ASP	THR	ARG	GLY	LYS	LEU	GLU	GLY	LEU	GLU	LEU	ARG
			420					425					430		
THR	GLN	ASP	LEU	GLU	GLY	ALA	LEU	ARG	THR	LYS	GLY	LEU	GLU	LEU	GLU
		435					440					445			
VAL	CYS	GLU	ASN	GLU	LEU	GLN	ARG	LYS	LYS	ASN	GLU	ALA	GLU	LEU	LEU
		450				455					460				
ARG	GLU	LYS	VAL	ASN	LEU	LEU	GLU	GLN	GLU	LEU	GLN	GLU	LEU	ARG	ALA
		465			470					475					480
GLN	ALA	ALA	LEU	ALA	ARG	ASP	MET	GLY	PRO	PRO	THR	PHE	PRO	GLU	ASP
				485					490					495	
VAL	PRO	ALA	LEU	GLN	ARG	GLU	LEU	GLU	ARG	LEU	ARG	ALA	GLU	LEU	ARG
			500					505					510		
GLU	GLU	ARG	GLN	GLY	HIS	ASP	GLN	MET	SER	SER	GLY	PHE	GLN	HIS	GLU
			515				520						525		

Fig. 5J-4

35 / 80

ARG LEU VAL TRP LYS GLU LYS GLU LYS VAL ILE GLN TYR GLN LYS
530 535 540

GLN LEU GLN GLN SER TYR VAL ALA MET TYR GLN ARG ASN GLN ARG LEU
545 550 555 560

GLU LYS ALA LEU GLN GLN LEU ALA ARG GLY ASP SER ALA GLY GLU PRO
565 570 575

LEU GLU VAL ASP LEU GLU GLY ALA ASP ILE PRO TYR GLU ASP ILE ILE
580 585 590

ALA THR GLU ILE
595

Fig. 5J-5

MET GLY SER VAL SER SER LEU ILE SER GLY HIS SER PHE HIS SER LYS
1 5 10 15
HIS CYS ARG ALA SER GLN TYR LYS LEU ARG LYS SER SER HIS LEU LYS
20 25 30
LYS LEU ASN ARG TYR SER ASP GLY LEU LEU ARG PHE GLY PHE SER GLN
35 40 45
ASP SER GLY HIS GLY LYS ALA MET THR ARG CYS PRO ARG ALA SER SER
50 55 60
MET SER GLY SER CYS GLY ARG ARG ARG ARG ARG .
65 70 75

Fig. 5K

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```

MET GLY SER VAL SER SER LEU ILE SER GLY HIS SER PHE HIS SER LYS
 1      5      10
HIS CYS ARG ALA SER GLN TYR LYS LYS LEU ARG LYS SER SER HIS LEU LYS
 20      25      30
LYS LEU ASN ARG TYR SER ASP GLY LEU LEU ARG PHE GLY PHE SER GLN
 35      40      45
ASP SER GLY HIS GLY LYS SER SER SER LYS MET GLY LYS SER GLU ASP
 50      55      60
PHE PHE TYR ILE LYS VAL SER GLN LYS ALA ARG GLY SER HIS HIS PRO
 65      70      75      80
ASP TYR THR ALA LEU SER SER GLY ASP LEU GLY GLN ALA GLY VAL
 85      90      95
ASP PHE ASP PRO SER THR PRO PRO LYS LEU MET PRO PHE SER ASN GLN
100      105      110
LEU GLU MET GLY SER GLU LYS GLY ALA VAL ARG PRO THR ALA PHE LYS
115      120      125
PRO VAL LEU PRO ARG SER GLY ALA ILE LEU HIS SER SER PRO GLU SER
130      135      140

```

Fig. 5L-1

ALA SER HIS GLN LEU LEU HIS PRO ALA PRO PRO ASP LYS PRO LYS GLU GLN
145 150 155 160

GLU LEU LYS PRO GLY LEU CYS SER GLY ALA LEU SER ASP SER GLY ARG
165 170 175

ASN SER MET SER SER LEU PRO THR HIS SER ALA GLY GLU PRO LEU GLU
180 185 190

VAL ASP LEU GLU GLY ALA ASP ILE PRO TYR GLU ASP ILE ILE ALA THR
195 200 205

GLU ILE
210

Fig. 5L-2

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MET GLY SER VAL SER SER LEU ILE SER GLY HIS SER PHE HIS SER LYS
1 5 10 15
HIS CYS ARG ALA SER GLN TYR LYS LEU ARG LYS SER SER HIS LEU LYS
20 25 30
LYS LEU ASN ARG TYR SER ASP GLY LEU LEU ARG PHE GLY PHE SER GLN
35 40 45
ASP SER GLY HIS GLY LYS SER SER LYS MET GLY LYS SER GLU ASP
50 55 60
PHE PHE TYR ILE LYS VAL SER GLN LYS ALA ARG GLY SER HIS HIS PRO
65 70 75 80
ASP TYR THR ALA LEU SER SER GLY ASP LEU GLY GLN ALA GLY VAL
85 90 95
ASP PHE ASP PRO SER THR PRO PRO LYS LEU MET PRO PHE SER ASN GLN
100 105 110
LEU GLU MET GLY SER GLU LYS GLY ALA VAL ARG PRO THR ALA PHE LYS
115 120 125
PRO VAL LEU PRO ARG SER GLY ALA ILE LEU HIS SER SER PRO GLU SER
130 135 140

Fig. 5M-1

ALA SER HIS GLN LEU HIS PRO ALA PRO PRO ASP LYS PRO LYS GLU GLN
145 150 155 160

GLU LEU LYS PRO GLY LEU CYS SER GLY ALA LEU SER ASP SER GLY ARG
165 170 175

ASN SER MET SER SER LEU PRO THR HIS SER SER THR SER SER TYR GLN
180 185 190

LEU ASP PRO LEU VAL THR PRO VAL GLY PRO THR SER ARG PHE GLY GLY
195 200 205

SER ALA HIS ASN ILE THR GLN GLY ILE VAL LEU GLN ASP SER ASN MET
210 215 220

MET SER LEU LYS ALA LEU SER PHE SER ASP GLY GLY SER LYS LEU GLY
225 230 235 240

HIS SER ASN LYS ALA ASP LYS GLY PRO SER CYS VAL ARG SER PRO ILE
245 250 255

SER THR ASP GLU CYS SER ILE GLN GLU LEU GLU LYS LEU LEU GLU
260 265 270

Fig. 5M-2

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ARG GLU GLY ALA LEU GLN LYS LEU GLN ARG SER PHE GLU GLU LYS GLU
275 280 285

LEU ALA SER SER LEU ALA TYR GLU GLU ARG PRO ARG ARG CYS ARG ASP
290 295 300

GLU LEU GLU GLY PRO GLU PRO LYS GLY GLY ASN LYS LEU LYS GLN ALA
305 310 315 320

SER GLN LYS SER GLN ARG ALA GLN GLN VAL LEU HIS LEU GLN VAL LEU
325 330 335

GLN LEU GLN GLN GLU LYS ARG GLN LEU ARG GLN GLU LEU GLU SER LEU
340 345 350

MET LYS GLU GLN ASP LEU LEU GLU THR LYS LEU ARG SER TYR GLU ARG
355 360 365

GLU LYS THR SER PHE GLY PRO ALA LEU GLU GLU THR GLN TRP GLU VAL
370 375 380

CYS GLN LYS SER GLY GLU ILE SER LEU LEU LYS GLN GLN LEU LYS GLU
385 390 395 400

Fig. 5M-3

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SER GLN THR GLU VAL ASN ALA LYS ALA SER GLU ILE LEU GLY LEU LYS
405 410 415

ALA GLN LEU LYS ASP THR ARG GLY LYS LEU GLU GLY LEU GLU LEU ARG
420 425 430

THR GLN ASP LEU GLU GLY ALA LEU ARG THR LYS GLY LEU GLU LEU GLU
435 440 445

VAL CYS GLU ASN GLU LEU GLN ARG LYS LYS ASN GLU ALA GLU LEU LEU
450 455 460

ARG GLU LYS HIS GLU ARG LEU VAL TRP LYS GLU GLU LYS GLU LYS VAL
465 470 475 480

ILE GLN TYR GLN LYS GLN LEU GLN SER TYR VAL ALA MET TYR GLN
485 490 495

ARG ASN GLN ARG LEU GLU LYS ALA LEU GLN GLN LEU ALA ARG GLY ASP
500 505 510

SER ALA GLY GLU PRO LEU GLU VAL ASP LEU GLU GLY ALA ASP ILE PRO
515 520 525

TYR GLU ASP ILE ILE ALA THR GLU ILE
530 535

Fig. 5M-4

```

MET GLY SER VAL SER SER LEU ILE SER GLY HIS SER PHE HIS SER LYS
 1      5      10
HIS CYS ARG ALA SER GLN TYR LYS LEU ARG LYS SER SER HIS LEU LYS
 20      25      30
LYS LEU ASN ARG TYR SER ASP GLY LEU LEU ARG PHE GLY PHE SER GLN
 35      40      45
ASP SER GLY HIS GLY LYS SER SER SER LYS MET GLY LYS SER GLU ASP
 50      55      60
PHE PHE TYR ILE LYS VAL SER GLN LYS ALA ARG GLY SER HIS HIS PRO
 65      70      75      80
ASP TYR THR ALA LEU SER SER GLY ASP LEU GLY GLN ALA GLY VAL
 85      90      95
ASP PHE ASP PRO SER THR PRO PRO LYS LEU MET PRO PHE SER ASN GLN
100      105      110
LEU GLU MET GLY SER GLU LYS GLY ALA VAL ARG PRO THR ALA PHE LYS
115      120      125
PRO VAL LEU PRO ARG SER GLY ALA ILE LEU HIS SER SER PRO GLU SER
130      135      140

```

Fig. 5N-1

ALA SER HIS GLN LEU HIS PRO ALA PRO PRO ASP LYS PRO LYS GLU GLN
145 150 155 160
GLU LEU LYS PRO GLY LEU CYS SER GLY ALA LEU SER ASP SER GLY ARG
165 170 175
ASN SER MET SER SER LEU PRO THR HIS SER THR SER SER SER TYR GLN
180 185 190
LEU ASP PRO LEU VAL THR PRO VAL GLY PRO THR SER ARG PHE GLY GLY
195 200 205
SER ALA HIS ASN ILE THR GLN GLY ILE VAL LEU GLN ASP SER ASN MET
210 215 220
MET SER LEU LYS ALA LEU SER PHE SER ASP GLY GLY SER LYS LEU GLY
225 230 235 240
HIS SER ASN LYS ALA ASP LYS GLY PRO SER CYS VAL ARG SER PRO ILE
245 250 255
SER THR ASP GLU CYS SER ILE GLN GLU LEU GLU LYS LEU LEU GLU
260 265 270

Fig. 5N-2

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ARG GLU GLY ALA LEU GLN LYS LEU GLN ARG SER PHE GLU GLU LYS GLU
275 280 285

LEU ALA SER SER LEU ALA TYR GLU GLU ARG PRO ARG ARG CYS ARG ASP
290 295 300

GLU LEU GLU GLY PRO GLU PRO LYS GLY GLY ASN LYS LEU LYS GLN ALA
305 310 315 320

SER GLN LYS SER GLN ARG ALA GLN GLN VAL LEU HIS LEU GLN VAL LEU
325 330 335

GLN LEU GLN GLN GLU LYS ARG GLN LEU ARG GLN GLU LEU GLU SER LEU
340 345 350

MET LYS GLU GLN ASP LEU LEU GLU THR LYS LEU ARG SER TYR GLU ARG
355 360 365

GLU LYS THR SER PHE GLY PRO ALA LEU GLU GLU THR GLN TRP GLU VAL
370 375 380

CYS GLN LYS SER GLY GLU ILE SER LEU LEU LYS GLN GLN LEU LYS GLU
385 390 395 400

Fig. 5N-3

SER GLN THR GLU VAL ASN ALA LYS ALA SER GLU ILE LEU GLY LEU LYS
 405 410 415

ALA GLN LEU LYS ASP THR ARG GLY LYS LEU GLU GLY LEU GLU LEU ARG
 420 425 430

THR GLN ASP LEU GLU GLY ALA LEU ARG THR LYS GLY LEU GLU LEU GLU
 435 440 445

VAL CYS GLU ASN GLU LEU GLN GLN SER TYR VAL ALA MET TYR GLN ARG
 450 455 460

ASN GLN ARG LEU GLU LYS ALA LEU GLN GLN LEU ALA ARG GLY ASP SER
 465 470 475 480

ALA GLY GLU PRO LEU GLU VAL ASP LEU GLU GLY ALA ASP ILE PRO TYR
 485 490 495

GLU ASP ILE ILE ALA THR GLU ILE
 500

Fig. 5N-4

MET	GLY	SER	VAL	SER	SER	LEU	ILE	SER	GLY	HIS	SER	PHE	HIS	SER	LYS	1	5	10	15
HIS	CYS	ARG	ALA	SER	GLN	TYR	LYS	LEU	ARG	LYS	SER	SER	HIS	LEU	LYS	20	25	30	
LYS	LEU	ASN	ARG	TYR	SER	ASP	GLY	LEU	LEU	ARG	PHE	GLY	PHE	SER	GLN	35	40	45	
ASP	SER	GLY	HIS	GLY	LYS	SER	SER	SER	LYS	MET	GLY	LYS	SER	GLU	ASP	50	55	60	
PHE	PHE	TYR	ILE	LYS	VAL	SER	GLN	LYS	ALA	ARG	GLY	SER	HIS	HIS	PRO	65	70	75	80
ASP	TYR	THR	ALA	LEU	SER	SER	GLY	ASP	LEU	GLY	GLY	GLN	ALA	GLY	VAL	85	90	95	
ASP	PHE	ASP	PRO	SER	THR	PRO	PRO	PRO	LYS	LEU	MET	PRO	PHE	SER	ASN	GLN	100	105	110
LEU	GLU	MET	GLY	SER	GLU	LYS	GLY	ALA	VAL	ARG	PRO	THR	ALA	PHE	LYS	115	120	125	
PRO	VAL	LEU	PRO	ARG	SER	GLY	ALA	ILE	LEU	HIS	SER	SER	PRO	GLU	SER	130	135	140	

Fig. 50-1

ALA SER HIS GLN LEU HIS PRO ALA PRO PRO ASP LYS PRO LYS GLU GLN	145	150	155	160
GLU LEU LYS PRO GLY LEU CYS SER GLY ALA LEU SER ASP SER GLY ARG	165	170	175	
ASN SER MET SER SER LEU PRO THR HIS SER THR SER SER SER TYR GLN	180	185	190	
LEU ASP PRO LEU VAL THR PRO VAL GLY PRO THR SER ARG PHE GLY GLY	195	200	205	
SER ALA HIS ASN ILE THR GLN GLY ILE VAL LEU GLN ASP SER ASN MET	210	215	220	
MET SER LEU LYS ALA LEU SER PHE SER ASP GLY GLY SER LYS LEU GLY	225	230	235	240
HIS SER ASN LYS ALA ASP LYS GLY PRO SER CYS VAL ARG SER PRO ILE	245	250	255	
SER THR ASP GLU CYS SER ILE GLN GLU LEU GLU LYS LEU LEU GLU	260	265	270	

Fig. 50-2

ARG GLU GLY ALA LEU GLN LYS LEU GLN ARG SER PHE GLU GLU LYS GLU
275 280 285

LEU ALA SER SER LEU ALA TYR GLU GLU ARG PRO ARG ARG CYS ARG ASP
290 295 300

GLU LEU GLU GLY PRO GLU PRO LYS GLY GLY ASN LYS LEU LYS GLN ALA
305 310 315 320

SER GLN LYS SER GLN ARG ALA GLN GLN VAL LEU HIS LEU GLN VAL LEU
325 330 335

GLN LEU GLN GLN GLU LYS ARG GLN LEU ARG GLN GLU LEU GLU SER LEU
340 345 350

MET LYS GLU GLN ASP LEU LEU GLU THR LYS LEU ARG SER TYR GLU ARG
355 360 365

GLU LYS THR SER PHE GLY PRO ALA LEU GLU GLU THR GLN TRP GLU VAL
370 375 380

CYS GLN LYS SER GLY GLU ILE SER LEU LEU LYS GLN GLN LEU LYS GLU
385 390 395 400

Fig. 50-3

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SER	GLN	THR	GLU	VAL	ASN	ALA	LYS	ALA	SER	GLU	ILE	LEU	GLY	LEU	LYS
				405					410					415	
ALA	GLN	LEU	LYS	ASP	THR	ARG	GLY	LYS	LEU	GLU	GLY	LEU	GLU	LEU	ARG
				420				425						430	
THR	GLN	ASP	LEU	GLU	GLY	ALA	LEU	ARG	THR	LYS	GLY	LEU	GLU	LEU	GLU
				435			440					445			
VAL	CYS	GLU	ASN	GLU	LEU	GLN	ARG	LYS	LYS	ASN	GLU	ALA	GLU	LEU	LEU
				450		455					460				
ARG	GLU	LYS	VAL	ASN	LEU	LEU	GLU	ARG	LEU	ARG	ALA	GLU	LEU	ARG	GLU
				465		470				475					480
GLU	ARG	GLN	GLY	HIS	ASP	GLN	MET	SER	SER	GLY	PHE	GLN	HIS	GLU	ARG
				485					490					495	
LEU	VAL	TRP	LYS	GLU	GLU	LYS	GLU	LYS	VAL	ILE	GLN	TYR	GLN	LYS	GLN
				500				505						510	
LEU	GLN	GLN	SER	TYR	VAL	ALA	MET	TYR	GLN	ARG	ASN	GLN	ARG	LEU	GLU
				515			520							525	

Fig. 50-4

LYS ALA LEU GLN GLN LEU ALA ARG GLY ASP SER ALA GLY GLU PRO LEU
 530 535 540
 GLU VAL ASP LEU GLU GLY ALA ASP ILE PRO TYR GLU ASP ILE ILE ALA
 545 550 555 560
 THR GLU ILE

Fig. 50-5

MET GLY SER VAL SER SER SER LEU ILE SER GLY HIS SER PHE HIS SER LYS
 1 5 10 15
 HIS CYS ARG ALA SER GLN TYR LYS LEU ARG LYS SER SER HIS LEU LYS
 20 25 30
 LYS LEU ASN ARG TYR SER ASP GLY LEU LEU ARG PHE GLY PHE SER GLN
 35 40 45
 ASP SER GLY HIS GLY LYS SER SER LYS MET GLY LYS SER GLU ASP
 50 55 60

Fig. 5P-1

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PHE PHE TYR ILE LYS VAL SER GLN LYS ALA ARG GLY SER HIS HIS PRO
65 70 75 80

ASP TYR THR ALA LEU SER SER GLY ASP LEU GLY GLY GLN ALA GLY VAL
85 90 95

ASP PHE ASP PRO SER THR PRO PRO LYS LEU MET PRO PHE SER ASN GLN
100 105 110

LEU GLU MET GLY SER GLU LYS GLY ALA VAL ARG PRO THR ALA PHE LYS
115 120 125

PRO VAL LEU PRO ARG SER GLY ALA ILE LEU HIS SER SER PRO GLU SER
130 135 140

ALA SER HIS GLN LEU HIS PRO ALA PRO PRO ASP LYS PRO LYS GLU GLN
145 150 155 160

GLU LEU LYS PRO GLY LEU CYS SER GLY ALA LEU SER ASP SER GLY ARG
165 170 175

ASN SER MET SER SER LEU PRO THR HIS SER THR SER SER TYR GLN
180 185 190

Fig. 5P-2

LEU	ASP	PRO	LEU	LEU	VAL	THR	PRO	PRO	VAL	GLY	PRO	THR	SER	ARG	PHE	GLY	GLY
		195							200					205			
SER	ALA	HIS	ASN	ILE	THR	GLN	GLY	ILE	VAL	LEU	GLN	ASP	SER	ASN	MET		
	210				215						220						
MET	SER	LEU	LYS	ALA	LEU	SER	PHE	SER	ASP	GLY	GLY	SER	LYS	LEU	GLY		
	225				230					235					240		
HIS	SER	ASN	LYS	ALA	ASP	LYS	GLY	PRO	SER	CYS	VAL	ARG	SER	PRO	ILE		
				245		250								255			
SER	THR	ASP	GLU	CYS	SER	ILE	GLN	GLU	LEU	GLU	GLN	LYS	LEU	LEU	GLU		
			260				265						270				
ARG	GLU	GLY	ALA	LEU	GLN	LYS	LEU	GLN	ARG	SER	PHE	GLU	GLU	LYS	GLU		
		275					280					285					
LEU	ALA	SER	SER	LEU	ALA	TYR	GLU	GLU	ARG	PRO	ARG	ARG	CYS	ARG	ASP		
	290					295					300						
GLU	LEU	GLU	GLY	PRO	GLU	PRO	LYS	GLY	GLY	ASN	LYS	LEU	LYS	GLN	ALA		
	305				310					315					320		

SER	GLN	LYS	SER	GLN	ARG	ALA	GLN	GLN	VAL	LEU	HIS	LEU	GLN	VAL	LEU	335
				325					330							
GLN	LEU	GLN	GLN	GLU	LYS	ARG	GLN	LEU	ARG	GLN	GLU	LEU	GLU	SER	LEU	350
				340					345							
MET	LYS	GLU	GLN	ASP	LEU	LEU	GLU	THR	LYS	LEU	ARG	SER	TYR	GLU	ARG	365
				355					360							
GLU	LYS	THR	SER	PHE	GLY	PRO	ALA	LEU	GLU	GLU	THR	GLN	TRP	GLU	VAL	380
							375									
CYS	GLN	LYS	SER	GLY	GLU	ILE	SER	LEU	LEU	LYS	GLN	GLN	LEU	LYS	GLU	400
							390									
SER	GLN	THR	GLU	VAL	ASN	ALA	LYS	ALA	SER	GLU	ILE	LEU	GLY	LEU	LYS	415
							405									
ALA	GLN	LEU	LYS	ASP	THR	ARG	GLY	LYS	LEU	GLU	GLY	LEU	GLU	LEU	ARG	430
THR	GLN	ASP	LEU	GLU	GLY	ALA	LEU	ARG	THR	LYS	GLY	LEU	GLU	LEU	GLU	445

Fig. 5P-4

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VAL CYS GLU ASN GLU LEU GLN ARG LYS LYS ASN GLU ALA GLU LEU LEU
450 455 460

ARG GLU LYS VAL ASN LEU LEU GLU GLN GLU LEU ARG ALA
465 470 475 480

GLN ALA ALA LEU ALA ARG ASP MET GLY PRO PRO THR PHE PRO GLU ASP
485 490 495

VAL PRO ALA LEU GLN ARG GLU LEU GLU ARG LEU VAL TRP LYS GLU GLU
500 505 510

LYS GLU LYS VAL ILE GLN TYR GLN LYS GLN LEU GLN SER TYR VAL
515 520 525

ALA MET TYR GLN ARG ASN GLN ARG LEU GLU LYS ALA LEU GLN GLN LEU
530 535 540

ALA ARG GLY ASP SER ALA GLY GLU PRO LEU GLU VAL ASP LEU GLU GLY
545 550 555 560

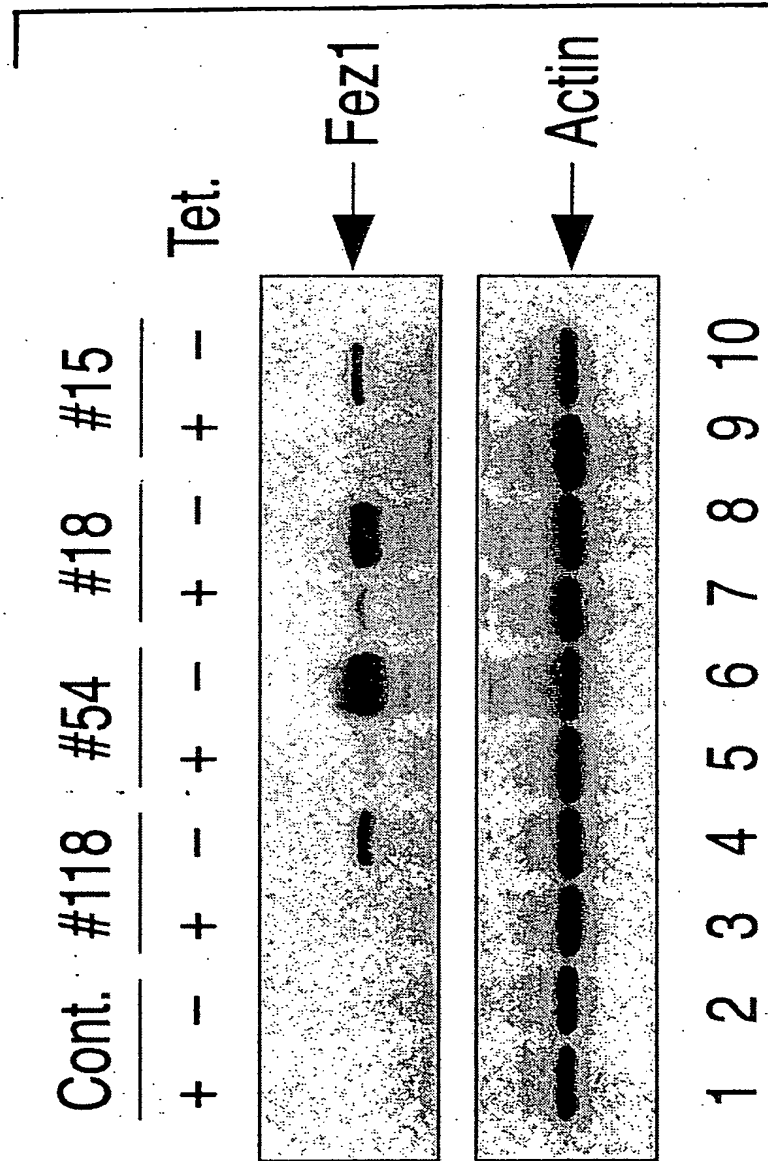
ALA ASP ILE PRO TYR GLU ASP ILE ILE ALA THR GLU ILE
565 570

Fig. 5P-5

GGACTCTGCC CCTGGACCTG GGAACGACTG GACTGTCAAG GGGTTCCCTC CTAGCTCTCC 60
CAGTGAATC CTGCCAGGCA CACACAGCCC CTATAGCACT GAGCTCACAT GGGACTGGGA 120
TATGGGGGCA TCTCTTCCCC AGAGAGGCAC TCAGTGAGCC TCCTGTGCCT GGGCCCAAGTC 180
TGGGCCATCT CTTAGGTGAG ACAGTTGCC GAACTAAGC CAGGCCTGGC TGGAGGAGCA 240
GCAGCTTGG GAGAGGGATT TCCCTGCAGA CCTCAAGCCA TCATGCCGTG GGTGCTGCCA 300
TGACAGAGGC TGCACCCCTG GGCCAGCGGG GCTGCTCACC CACCTCTTGT GCAAGGTGGC 360
CTTTGTGCTG CGCCTGCAGG CAGAGCTGGA GCGCCCAAGCA GAGGCAGGCT GGGACGGACC 420
AGCATCTGGA AGATGTACAT AGTTATTTT CTCTTTGTGG TTTCTTGTTC GGTTCGTTT 480
GCTTTTGACA GCTTCATTTT ATTTTGTGACG TCACTTTTTG GCCATGTAAA CTATTGTGG 540
CAATTTTATG TTTTATTTA TGAATAAAGA ATGCCATTTC TCACGCCCTC T 591

Fig. 5Q

FIG. 6



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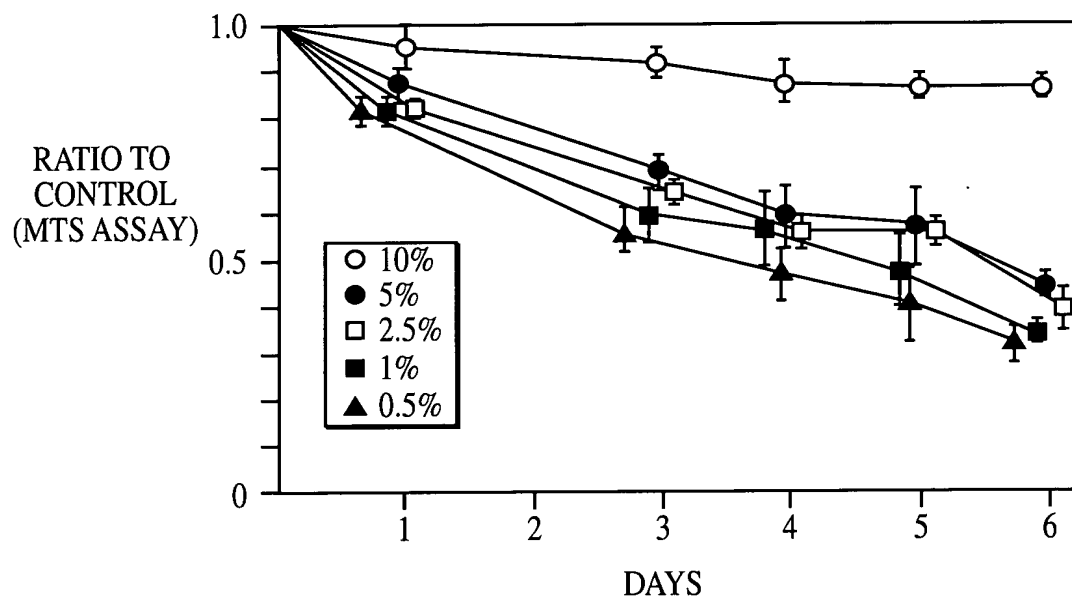


Fig. 7A

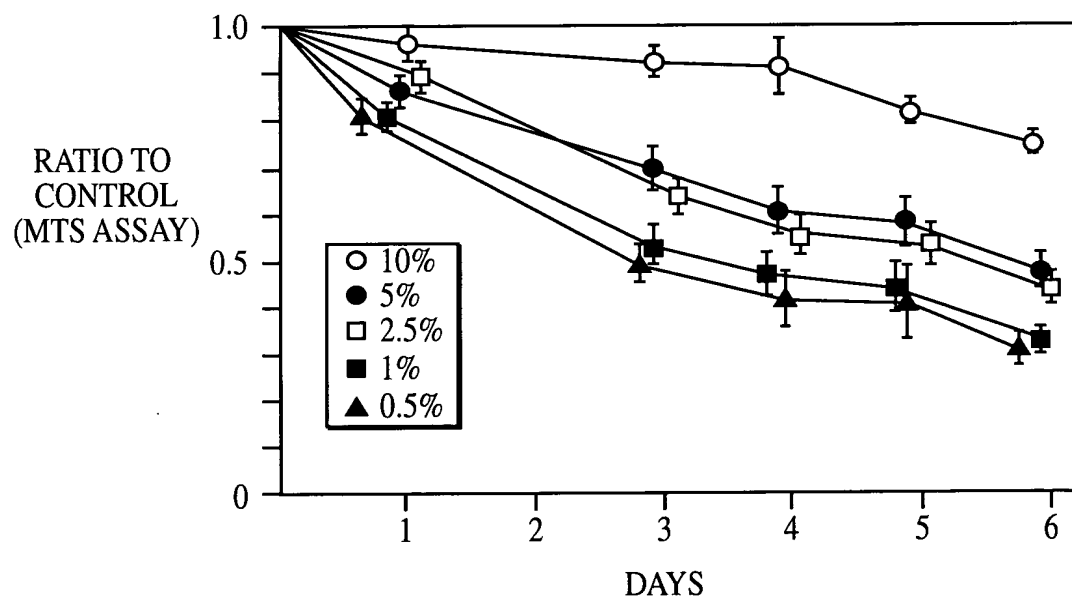


Fig. 7B

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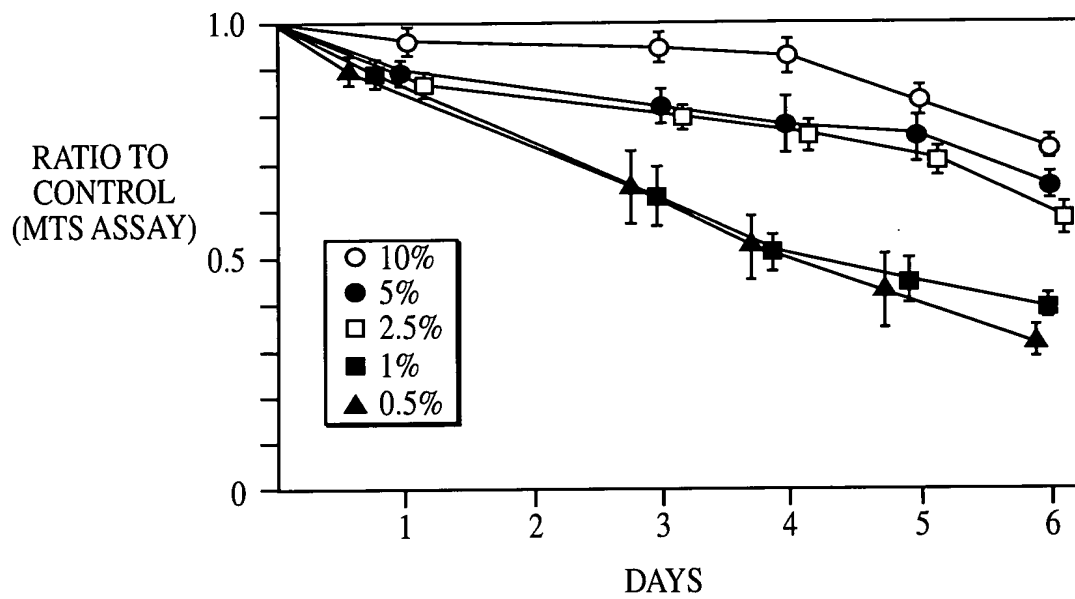


Fig. 7C

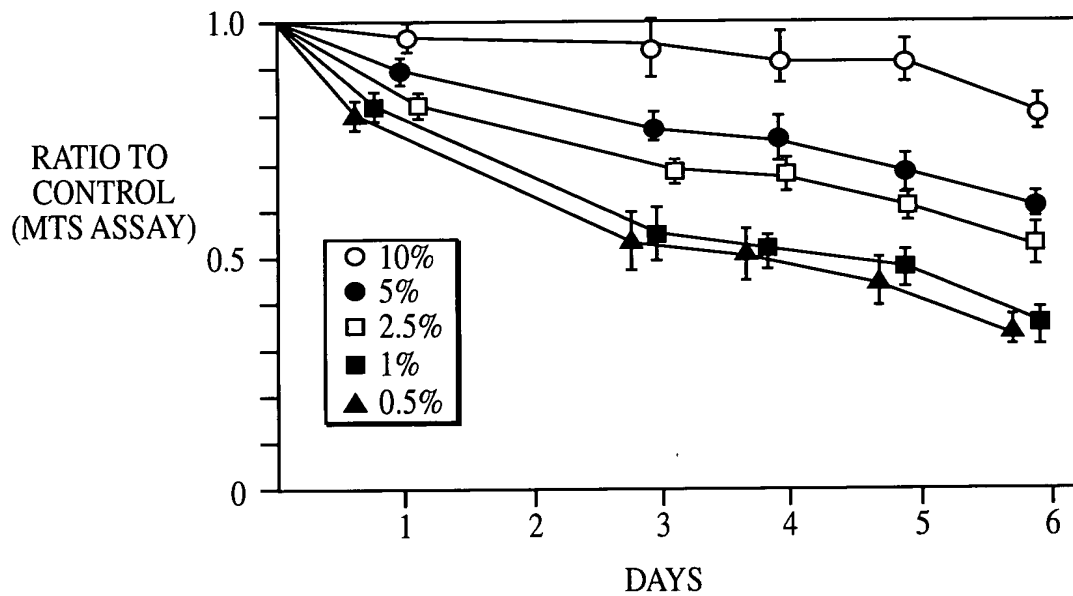


Fig. 7D

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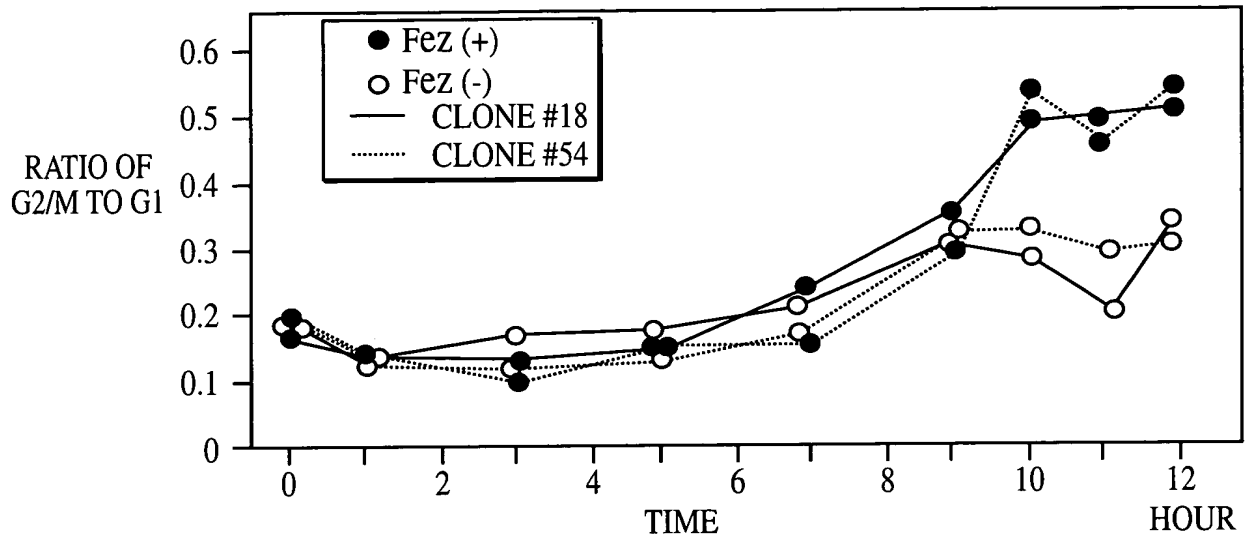


Fig. 8A

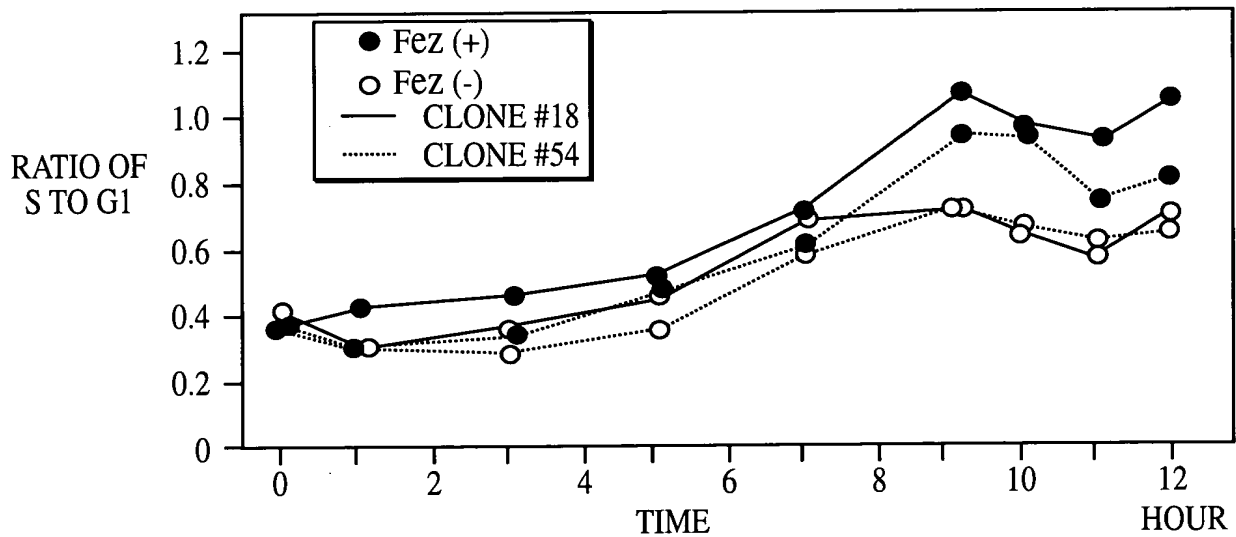


Fig. 8B

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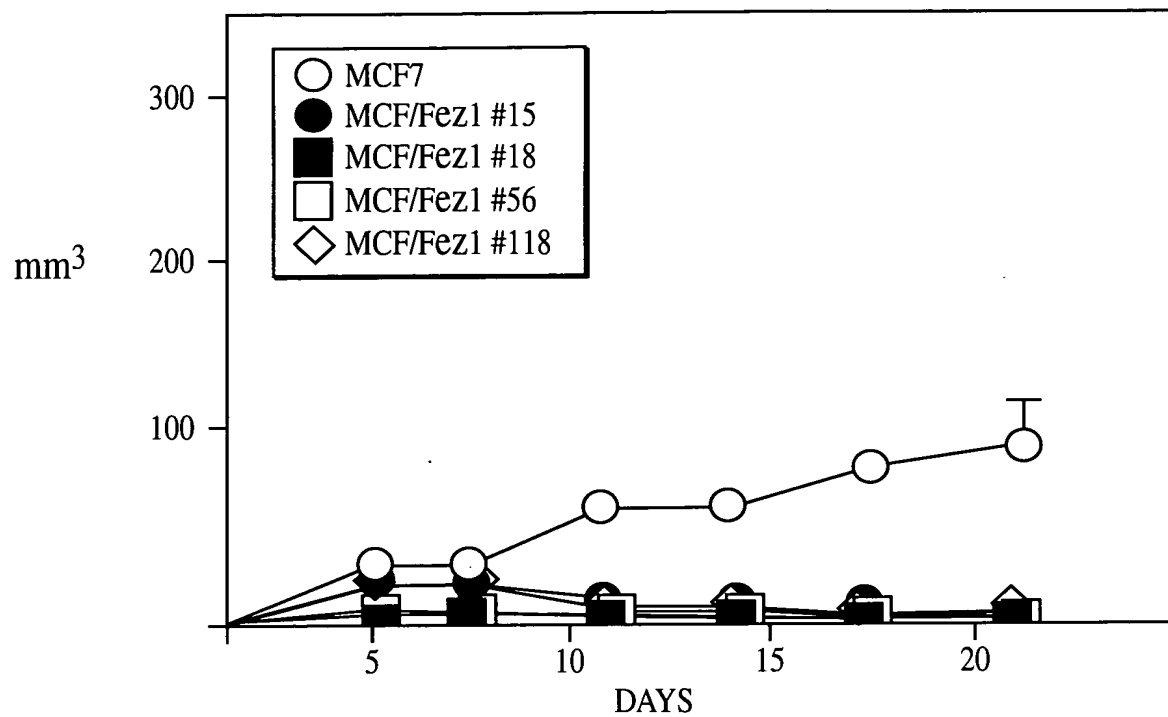


Fig. 9A

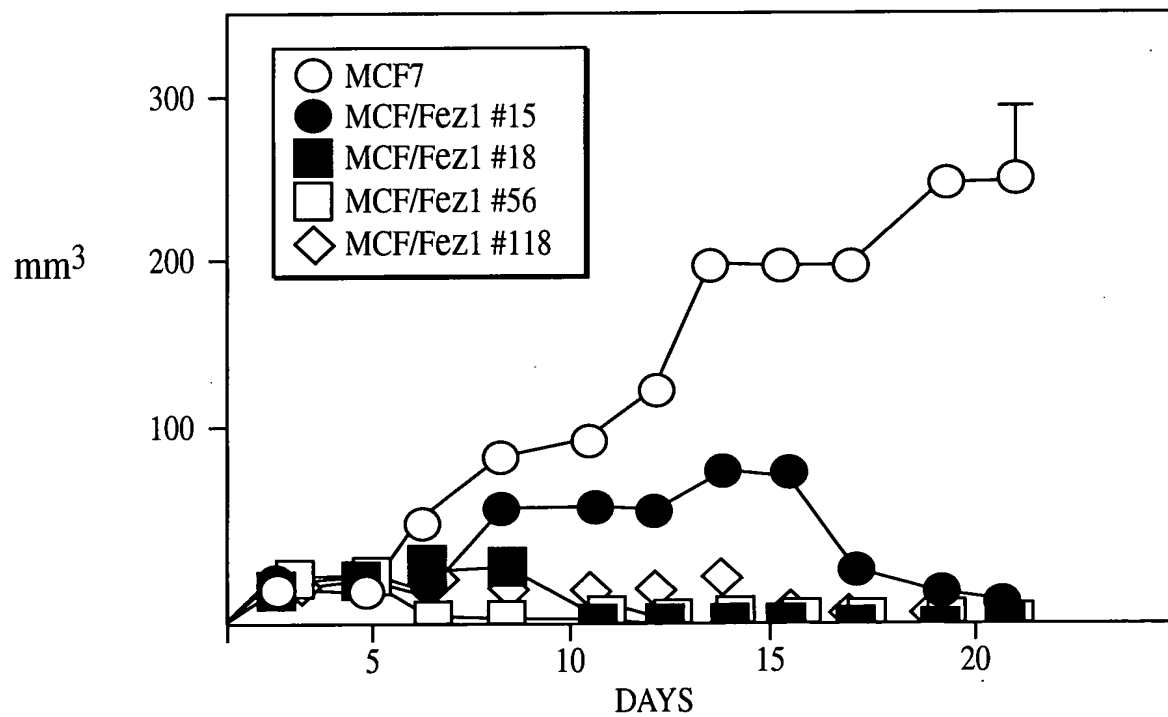


Fig. 9B

```
1 GAATTCGGCC GGCATCATC AATAATATAC CTTATTTTGG ATTGAAGCCA ATATGATAAT
61 GAGGGGGTGG AGTTTGTGAC GTGGCGCGGG GCGTGGGAAC GGGCGGGGTG ACGTAGTAGT
121 GTGGCGGAAG TGTGATGTTG CAAGTGTGGC GGAACACATG TAAGCGACGG ATGTGGCAAA
181 AGTGACGTTT TTGGTGTGCG CCGGTGTACA CAGGAAGTGA CAATTTTCGC GCGGTTTAG
241 GCGGATGTTG TAGTAAATTT GGGCGTAACC GAGTAAGATT TGGCCATTTT CGCGGAAAA
301 CTGAATAAGA GGAAGTGAAA TCTGAATAAT TTTGTGTTAC TCATAGCGCG TAATATTGT
361 CTAGGGCCGC CAGATCGATC TCCGAGGGAT CTCGACCAAA TGATTTGCC TCCCATATGT
421 CCTTCCGAGT GAGAGACACA AAAAATTCCA ACACACTATT GCAATGAAAA TAAATTTCTT
481 TTATTAGCCA GAGGTCGAGG TCGGGGATC CTCAGTTGTA CAGTTTCATCC ATGCCATGTG
541 TAATCCCAGC AGCTGTTACA AACTCAAGAA GGACCATGTG GTCTCTCTTT TCGTTGGGAT
601 CTTTCGAAAG GGCAGATTGT GTGGACAGGT AATGGTTGTC TGGTAAAGG ACAGGGCCAT
661 CGCCAATTGG AGTATTTTGT TGATAATGGT CTGCTAGTTG AACGCTTCCA TCTTCAATGT
721 TGTGGCGGGT CTTGAAGTTC ACTTTGATTC CATTCTTTTG TTTGTCTGCC ATGATGTATA
781 CATTGTGTGA GTTATAGTTG TATTCCAATT TGTGTCCCAG AATGTTGCCA TCTTCCTTGA
841 AGTCAATACC TTTTAACTCG ATTCTATTAA CAAGGGTATC ACCTTCAAAC TTGACTTCAG
901 CACGTGTCTT GTAGTTGCCG TCATCTTTGA AGAAGATGGT CCTTTCCTGT ACATAACCTT
961 CGGGCATGGC ACTCTTGAAA AAGTCATGCC GTTTCATATG ATCCGGGTAT CTTGAAAAGC
1021 ATTGAACACC ATAGCACAGA GTAGTACTA GTGTTGCCA TGGAAACAGG AGTTTGCCAG
1081 TAGTGCAGAT GAAC TTCAGG GTAAGTTTTC CGTATGTTGC ATCACCTTCA CCTCTCCAC
1141 TGACAGAGAA CTTGTGGCCG TTAACATCAC CATCTAATTC AACAGAATT GGGACAACTC
1201 CAGTGAAGAG TTCTTCTCCT TTGCTAGCCA TGGCGGATCC GGCTGAACGG TCTGGTTATA
1261 GGTAACATTGA GCAACTGACT GAAATGCC TC AAAATGTTCT TTACGATGCC ATTGGGATAT
1321 ATCAACGGTG GTATATCCAG TGATTTT TTTT CTCCATGGTT GTGGCAAGCT TATCATCGTG
1381 TTTTTCAAAG GAAAACCCAG TCCCGGTGGT TCGGGGGGCC TAGACGTTTT TTAACCTCGA
1441 CTAACACAT GTAAAGCATG TGCACCGAGG CCCCAGATCA GATCCCATAC AATGGGGTAC
```

Fig. 10A

1501 CTTCCTGGGCA TCCTTCAGCC CCTTGTTGAA TACGCTTGAG GAGAGCCATT TGACTCTTTC
1561 CACAACATC CAACTCACAA CGTGGCACTG GGGTTGTGCC GCCTTTGCAG GTGTATCTTA
1621 TACACGTGGC TTTTGGCCGC AGAGGCACCT GTCGCCAGGT GGGGGTTCC GCTGCCCTGCA
1681 AAGGGTCGCT ACAGACGTTG TTTGTCTTCA AGAAGCTTCC AGAGGAAC TG CTTCCCTTAC
1741 GACATTCAAC AGACCTTGCA TTCCTTTGGC GAGAGGGGAA AGACCCCTAG GAATGCTCGT
1801 CAAGAAGACA GGGCCAGGTT TCCGGGCCCT CACATTGCCA AAAGACGGCA ATATGGTGGA
1861 AAATAACATA TAGACAAACG CACACCGGCC TTATTCCAAG CGGCTTCGGC CAGTAACGTT
1921 AGGGGGGGG GAGGAGAGG GCGGAATTG GAGAGGGCG AATTCGGGC CGCGGAGATC
1981 TTCCAAACTT GGACCTGGGA GTGGACACCT GTGGAGAGAA AGCAAAAGTG GATGTCATTG
2041 TCACTCAAGT GTATGGCCAG ATCGGGCCAG GTGAATATCA AATCCTCCTC GTTTTGTGAA
2101 ACTGACAATC TTAGCGCAGA AGTCATGCC GCTTTTGAGA GGGAGTACTC ACCCCAACAG
2161 CTGGATCTCA AGCCTGCCAC ACCTCACCTC GACCATCCGC CGGCTCAAGA CCGCTACTT
2221 TAATTACATC ATCAGCAGCA CCTCCGCCAG AAACAACCCC GACCGCCACC CGCTGCCGCC
2281 CGCCACGGTG CTCAGCCTAC CTTGCCACTG TGACTGGTTA GACGCCTTTC TCGAGAGGTT
2341 TTCCGATCCG GTCGATGCGG ACTGGCTCAG GTCCCTCGGT GCGGGAGTAC CGTTCGGAGG
2401 CCGACGGGTT TCCGATCCAA GAGTACTGGA AAGACCGCGA AGAGTTTGTCT CTCAACCCGCG
2461 AGCCCAACAG CTGGCCCTCG CAGACAGCGA TGCGGAAGAG AGTGAGGATC TGACGGTTCA
2521 CTAAACGAGC TCTGCTTATA TAGACCTCCC ACCGTACACG CCTACCGCCC ATTTGCGTCA
2581 ACGGGCGGG GTTATTACGA CATTTTGAA AGTCCCGTTG ATTTTGTGTG CAAAACAAAC
2641 TCCCATTTGAC GTCAATGGGG TGGAGACTTG GAAATCCCCG TGAGTCAAAC CGCTATCCAC
2701 GCCCATTTGGT GTACTGCCAA AACCGCATCA CCATGGTAAT AGCGATGACT AATACGTAGA
2761 TGTA CTGCCA AGTAGGAAAG TCCCGTAAGG TCATGTACTG GGCATAATGC CAGCGGGGCC
2821 ATTTACCGTC ATTGACGTCA ATAGGGGGCG GACTTGGCAT ATGATACACT TGATGTACTG
2881 CCAAGTGGGC AGTTTACCGT AAATACTCCA CCCATTGACG TCAATGGAAA GTCCCTATTG
2941 GCGTTACTAT GGAACATAC GTCATTATTG ACGTCAATGG GCGGGGGTGC TTGGGCGGTC

Fig. 10B

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3001 AGCCAGGCGG GCCATTTACC GTAAGTTATG TAACGCGGAA CTCATATAT GGGCTATGAA
3061 CTAATGACCC CGTAATTGAT TACTATTAAT AACTAGTCAA TAATCAATGT CAACATGGCG
3121 GTCATATTGG ACATGAGCCA ATATAAATGT ACATATTATG ATATAGATAC AACGTATGCA
3181 ATGCCCAATA GCCAATATTG ATTTATGCTA TATAACCAAT GACTAATATG GCTAATTGCC
3241 AATATTGATT CAATGTATAG ATCGATCTGG AAGGTGCTGA GGTACGATGA GACCCGCACC
3301 AGGTGCAGAC CCTGCGAGTG TGGCGGTAAA CATATTAGGA ACCAGCCTGT GATGCTGGAT
3361 GTGACCGAGG AGCTGAGGCC CGATCACTTG GTGCTGGCCT GCACCCGCGC TGAGTTTGGC
3421 TCTAGCGATG AAGATACAGA TTGAGTACT GAAATGTGTG GCGTGGCTT AAGGTGGGA
3481 AAGAAATATAT AAGTGGGGG TCTTATGTAG TTTTGTATCT GTTTTGCAGC AGCCGCCGCC
3541 GCCATGAGCA CCAACTCGTT TGATGGAAGC ATTTGTAGCT CATATTGAC AACGCCCATG
3601 CCCCCATGGG CCGGGTGCG TCAGAATGTG ATGGGCTCCA GCATTGATGG TCGCCCCGTC
3661 CTGCCCGCAA ACTCTACTAC CTTGACCTAC GAGACCGTGT CTGGAACGCC GTTGAGACT
3721 GCAGCCTCCG CCGCCGCTTC AGCCGCTGCA GCCACCGCCC GCGGGATTGT GACTGACTTT
3781 GCTTTCCTGA GCCCGCTTGC AAGCAGTGCA GCTTCCCCTT CATCCGCCG CGATGACAAG
3841 TTGACGGCTC TTTTGGCACA ATTGGATTCT TTGACCCCGG AACTTAATGT CGTTTCTCAG
3901 CAGCTGTTGG ATCTGCGCCA GCAGGTTTCT GCCCTGAAGG CTTCCTCCCC TCCCAATGCG
3961 GTTTAAACA TAAATAAAAA ACCAGACTCT GTTTGGATTT GGATCAAGCA AGTGCTCTGC
4021 TGTCCTTATT TAGGGGTTT GCGCGCGCGG TAGCCCGGG ACCAGCGTC TCGGTCGTTG
4081 AGGTCCTGT GTATTTTTC CAGGACGTGG TAAAGGTGAC TCTGGATGTT CAGATACATG
4141 GGCATAAGCC CGTCTCTGGG GTGGAGGTAG CACCACTGCA GAGCTTCATG CTGCGGGGTG
4201 GTGTTGTAGA TGATCCAGTC GTAGCAGGAG CGCTGGCGT GGTGCCATAA AATGCTCTTC
4261 AGTAGCAAGC TGATTGCCAG GGCAGGCC TTTGGTGAAG TGTTTACAAA GCGGTTAAGC
4321 TGGGATGGT GCATACGTGG GGATATGAGA TGCATCTTGG ACTGTATTTT TAGGTTGGCT
4381 ATGTTCCCAG CCATATCCCT CCGGGGATTC ATGTTGTGCA GAACCAACCAG CACAGTGTAT
4441 CCGGTGCACT TGGGAAATTT GTCATGTAGC TTAGAAGGAA ATGCGTGGAA GAACTTGGAG
    
```

Fig. 10C


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4501 ACGCCCTTGT GACCTCCAAG ATTTTCCATG CATTCGTCCA TAATGATGGC AATGGGCCCA
4561 CGGGCGCGG CCTGGCGGAA GATATTCTTG GGATCACTAA CGTCATAGTT GTGTTCCAGG
4621 ATGAGATCGT CATAGGCCAT TTTTACAAAG CGCGGGCGGA GGTGCCAGA CTGCGGTATA
4681 ATGGTTCCAT CCGGCCCAGG GCGTAGTTA CCCTCACAGA TTTGCATTTC CCACGCTTGG
4741 AGTTCAGATG GGGGATCAT GTCTACCTGC GGGCGATGA AGAAACGGT TTCCGGGGTA
4801 GGGAGATCA GCTGGGAAGA AAGCAGGTTCT CTGAGCAGCT GCGACTTACC GCAGCCGGTG
4861 GGCCCGTAAA TCACACCTAT TACCGGGTGC AACTGGTAGT TAAGAGAGCT GCAGCTGCCG
4921 TCATCCCTGA GCAGGGGGC CACTTCGTTA AGCATGTCCC TGACTCGCAT GTTTTCCCTG
4981 ACCAAATCCG CCAGAAGCG CTGCGCGCC AGCGATAGCA GTTCTTGCAA GGAAGCAAAG
5041 TTTTTCACG GTTTGAGACC GTCCGCCGTA GGCATGCTTT TGAGCGTTTG ACCAAGCAGT
5101 TCCAGGCGGT CCCACAGCTC GGTACCTGC TCTACGGCAT CTCGATCCAG CATATCTCCT
5161 CGTTTCGCG GTTGGGCGG CTTTCGCTGT ACGGCAGTAG TCGGTGCTCG TCCAGACGGG
5221 CCAGGTCAT GTCTTTCAC GGGCGCAGG TCCTCGTCAG CGTAGTCTGG GTCACGGTGA
5281 AGGGTGCGC TCCGGGCTGC GCGTGGCCA GGTGCGCTT GAGGCTGGTC CTGCTGGTGC
5341 TGAAGCGCTG CCGGTCCTCG CCCTGCGCGT CGGCCAGTA GCATTTGACC ATGGTGTCTAT
5401 AGTCCAGCCC CTCCGCGGCG TGGCCCTTGG CGCGCAGCTT GCCCTTGGAG GAGGCGCCGC
5461 ACGAGGGCA GTGCAGACTT TTGAGGCGGT AGAGCTTGGG CGCGAGAAAT ACCGATTCCG
5521 GGGAGTAGG ATCCGCGCCG CAGGCCCCGC AGACGGTCTC GCATTCCACG AGCCAGGTGA
5581 GCTCTGGCCG TTCGGGTCA AAAACCAAGT TTCCCCCATG CTTTTTGATG CGTTTCTTAC
5641 CTCTGGTTTC CATGAGCCGG TGTCCACGCT CGGTGACGAA AAGGCTGTCC GTGTCCCCGT
5701 ATACAGACTT GAGAGGCCTG TCCTCGACCG ATGCCCTTGA GAGCCTTCAA CCCAGTCAGC
5761 TCCTTCCGGT GGGCGCGGG CATGACTATC GTCGCCGCAC TTATGACTGT CTTCTTTATC
5821 ATGCAACTCG TAGACAGGT GCCGCAGCG CTCTGGGTCA TTTTCGGCGA GGACCGCTTT
5881 CGCTGGAGCG CGACGATGAT CGGCCTGTCT CTTGCGGTAT TCGGAATCTT GCACGCCCTC
5941 GCTCAAGCCT TCGTCACTGG TCCCGCCACC AAACGTTTCG GCGAGAAGCA GGCCATTATC
```

Fig. 10D

6001 GCCGGCATGG CGGCCGACGC GCTGGGCTAÇ GTCTTGCTGG CGTTCGCGAC GCGAGGCTGG
6061 ATGGCCTTCC CCATTATGAT TCTTCTCGCT TCCGGCGGCA TCGGGATGCC CGCGTTGCAG
6121 GCCATGCTGT CCAGGCAGGT AGATGACGAC CATCAGGGAC AGCTTCAAGG ATCGCTCGCG
6181 GCTCTTACCA GCTGAGCAA AGGCCAGCAA AAGCCAGGA ACCGTAAAAA GCGCGCGTTG
6241 CTGGCGTTT TCCATAGGCT CCGCCCCCT GACGAGCATC ACAAATCG ACGCTCAAGT
6301 CAGAGGTGGC GAAACCCGAC AGGACTATAA AGATACCAGG CGTTTCCCC TGGAGCTCC
6361 CTCGTGCGCT CTCCTGTTCC GACCCTGCCG CTTACCGGAT ACCTGTCCGC CTTTCTCCCT
6421 TCGGGAAGCG TGGCGCTTC TCAATGCTCA CGCTGTAGGT ATCTCAGTTC GGTGTAGTTC
6481 GTTCGCTCCA AGCTGGGCTG TGTGCACGAA CCCCCGTTT AGCCGACCG CTGCGCCCTTA
6541 TCCGGTAACT ATCGTCTTGA GTCCAACCCG GTAAGACACG ACTTATCGCC ACTGGCAGCA
6601 GCCACTGGTA ACAGGATTAG CAGAGCGAGG TATGTAGGCG GTGCTACAGA GTTCTTGAAG
6661 TGGTGGCCTA ACTACGGCTA CACTAGAAGG ACAGTATTG GTATCTGCGC TCTGCTGAAG
6721 CCAGTTACCT TCGGAAAAAG AGTTGGTAGC TCTTGATCCG GCAAACAAAC CACCGCTGGT
6781 AGCGGTGGTT TTTTGTGTTG CAAGCAGCAG ATTACGCGCA GAAAAAAGG ATCTCAAGAA
6841 GATCCTTTGA TCTTTTCTAC GGGGTCTGAC GCTCAGTGA ACGAAAACTC ACGTTAAGGG
6901 ATTTTGGTCA TGAGATTATC AAAAAGGATC TTCACCTAGA TCCTTTTAAA TTAAAAATGA
6961 AGTTTAAAT CAATCTAAAG TATATATGAG TAAACTTGGT CTGACAGTTA CCAATGCTTA
7021 ATCAGTGAGG CACCTATCTC AGCGATCTGT CTATTTTCGT CATCCATAGT TGCCTGACTC
7081 CCCGTCGTGT AGATAACTAC GATACGGGAG GGCTTACCAT CTGGCCCCAG TGCTGCAATG
7141 ATACCGCGAG ACCCAGCTC ACCGGCTCCA GATTATCAG CAATAAACCA GCCAGCCGGA
7201 AGGGCCGAGC GCAGAAGTGG TCCTGCAACT TTATCCGCCT CCATCCAGTC TATTAATTGT
7261 TGCCGGGAAG CTAGAGTAAG TAGTTCGCA GTTAATAGTT TCGCAACGT TGTGCCATT
7321 GCTGCAGGCA TCGTGGTGTG ACGCTCGTCG TTTGGTATGG CTTCAATCAG CTCCGGTTCC
7381 CAACGATCAA GCGGAGTTAC ATGATCCCCC ATGTTGTGCA AAAAAGCGGT TAGCTCCTTC
7441 GGTCCCTCCGA TCGTTGTGAG AAGTAAGTTG GCCGCAGTGT TATCACTCAT GGTATATGCA

Fig. 10E

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7501 GCACTGCATA ATTCTCTTAC TGTCAIGCCA TCCGTAAGAT GCTTTTCTGT GACTGGTGAG
7561 TACTCAACCA AGTCATTCTG AGAATAGTGT ATGCGGGCGAC CGAGTTGCTC TTGCCCCGGCG
7621 TCAACACGGG ATAATACCGC GCCACATAGC AGAACTTTAA AAGTGCTCAT CATTGGAAAA
7681 CGTTCTTCGG GCGGAAACT CTCAAGGATC TTACCGCTGT TGAGATCCAG TTCGATGTAA
7741 CCCACTCGTG CACCCAACTG ATCTTCAGCA TCTTTTACTT TCACCAAGCGT TTCTGGGTGA
7801 GCAAAAACAG GAAGGC AAAA TGCCGC AAAA AAGGAAATAA GGGCGACACG GAAATGTTGA
7861 ATACTCATA TCTTCCTTTT TCAATATTAT TGAAGCATTT ATCAGGGTTA TTGTCTCATG
7921 AGCGGATACA TATTGAATG TATTTAGAAA AATAAACAAA TAGGGTTCC GCGCACATTT
7981 CCCCAGAAAG TGCCACCTGA CGTCTAAGAA ACCATTATTA TCATGACATT AACCTATAAA
8041 AATAGGCGTA TCACGAGGCC CTTTCGTCTT CAA

Fig. 10F

FIG. 11A

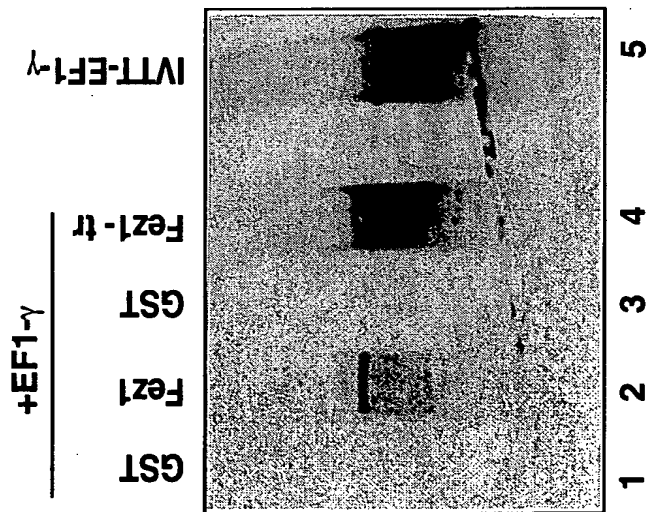


FIG. 11B

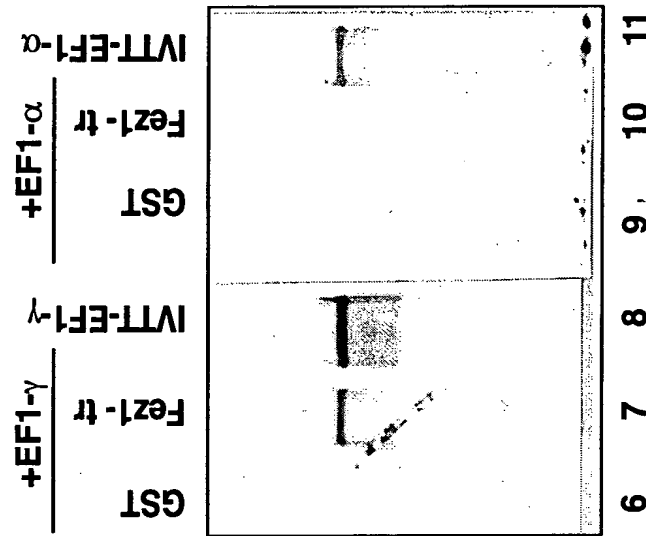


FIG. 11C

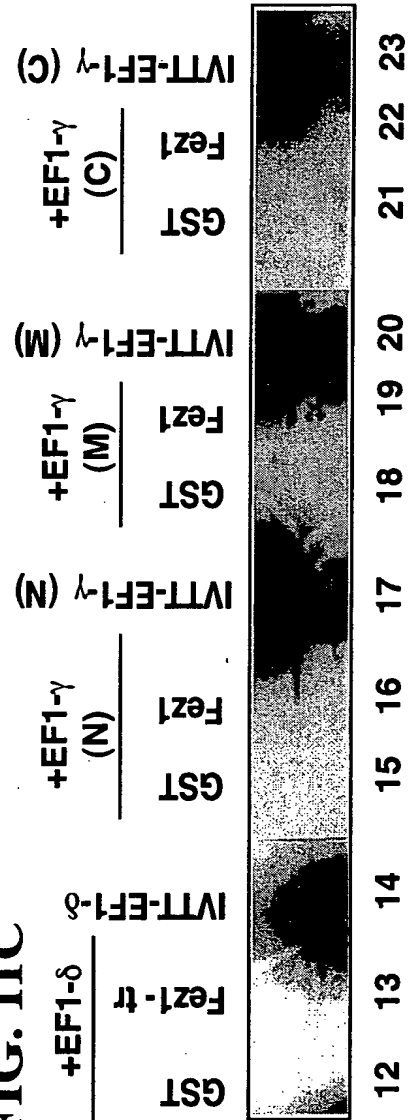


FIG. 12

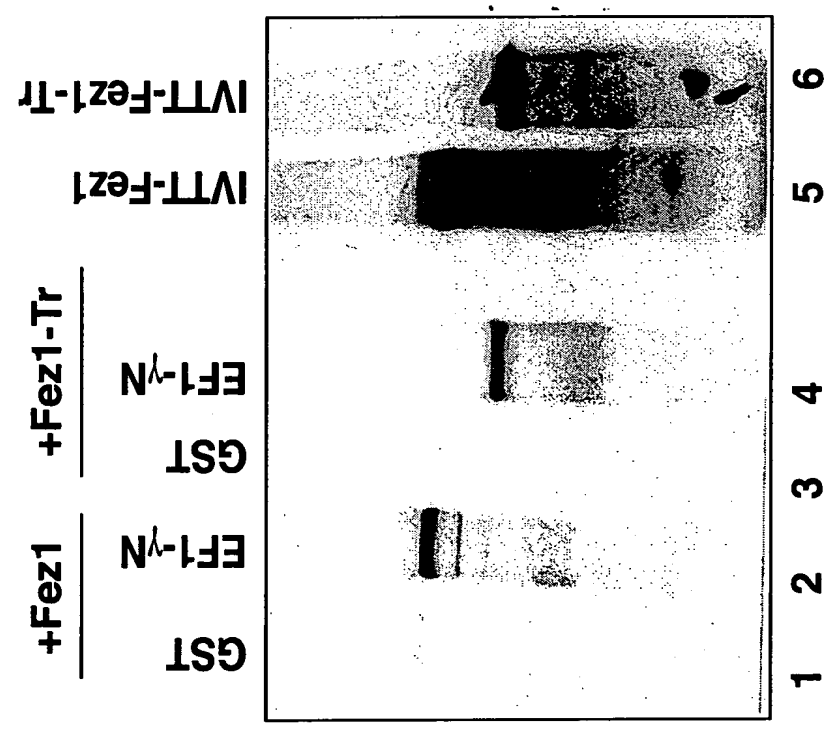


FIG. 13

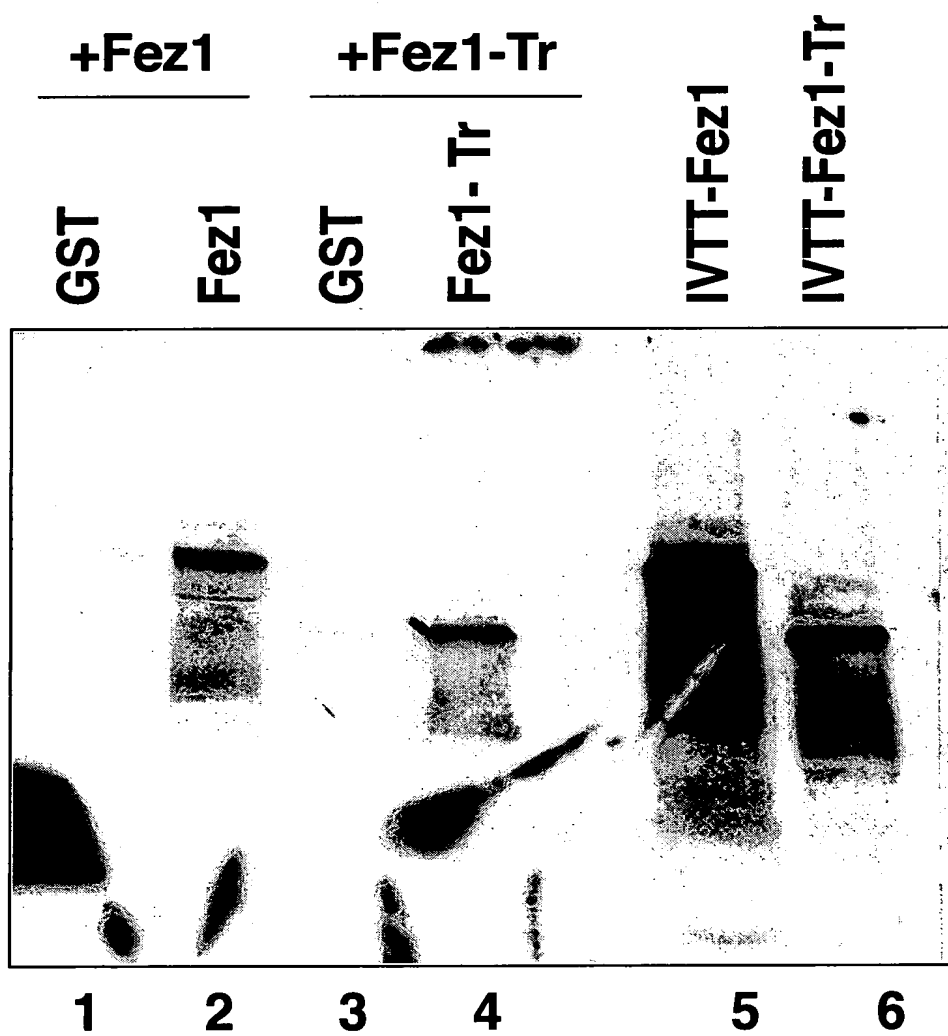


FIG. 14A

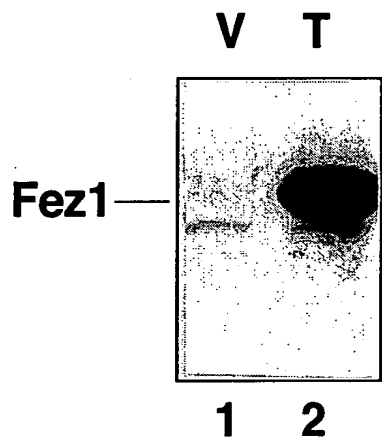


FIG. 14B

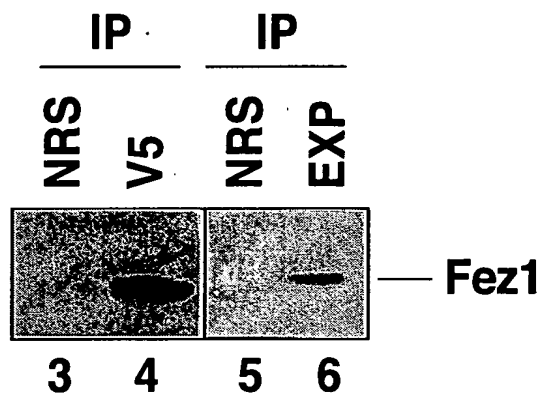


FIG. 14C

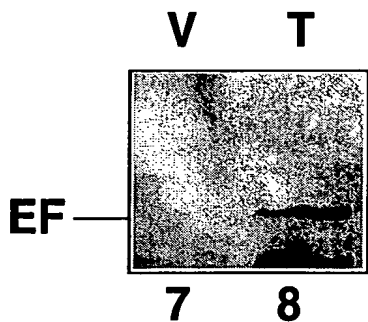


FIG. 14D

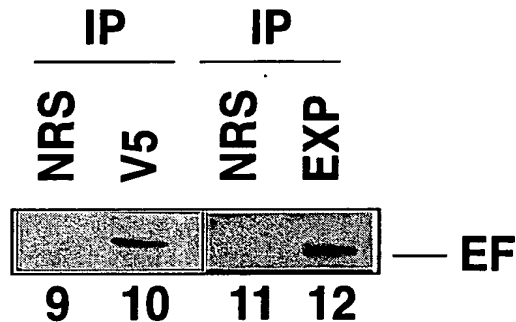


FIG. 15B

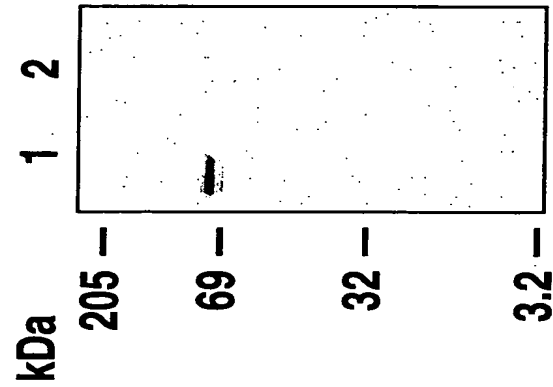


FIG. 15A

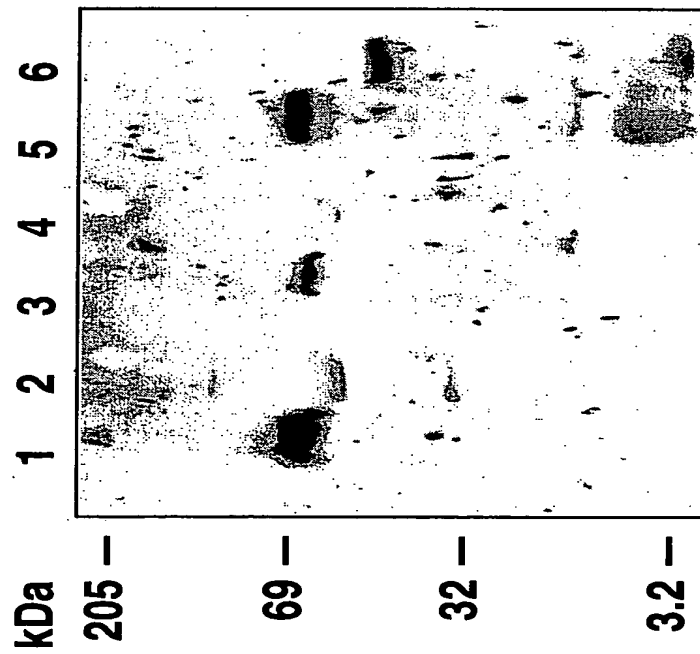


FIG. 16A

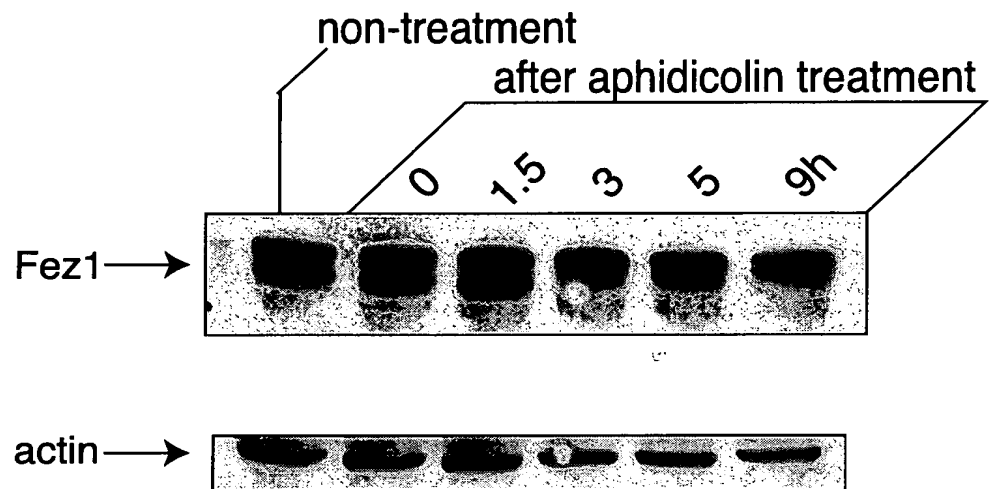
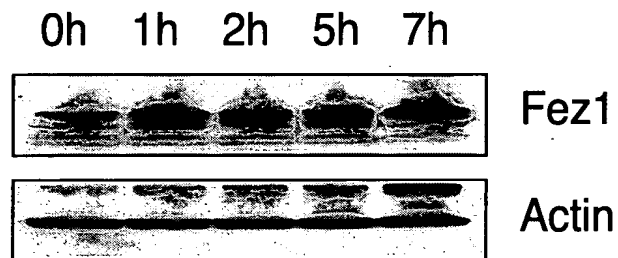


FIG. 16B



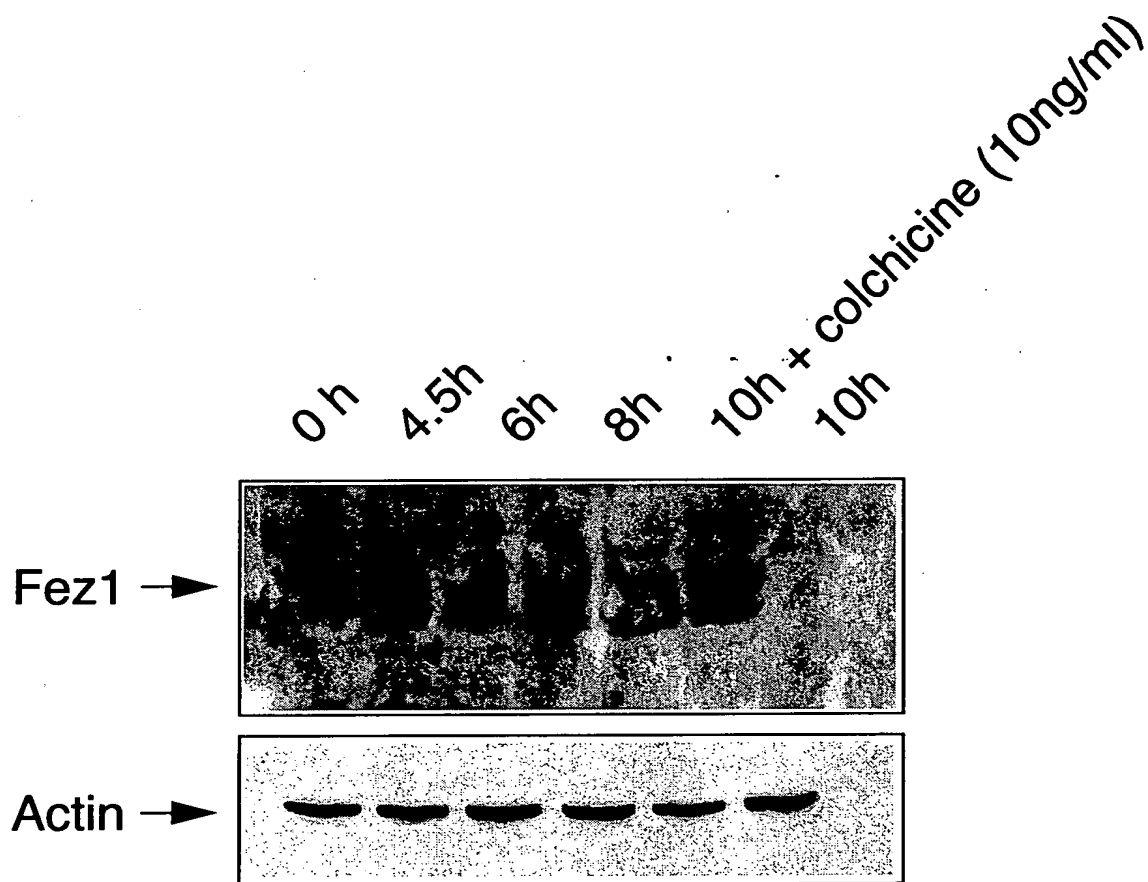


FIG. 17

FIG. 18

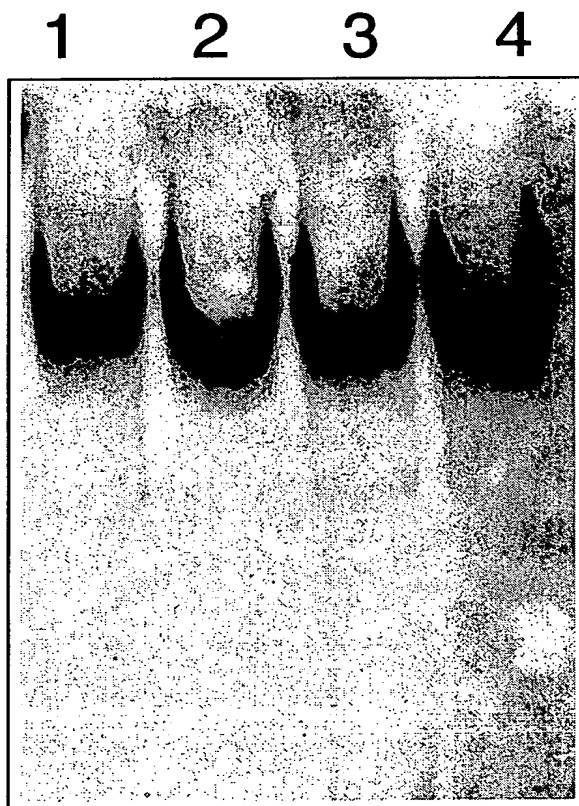


FIG. 19

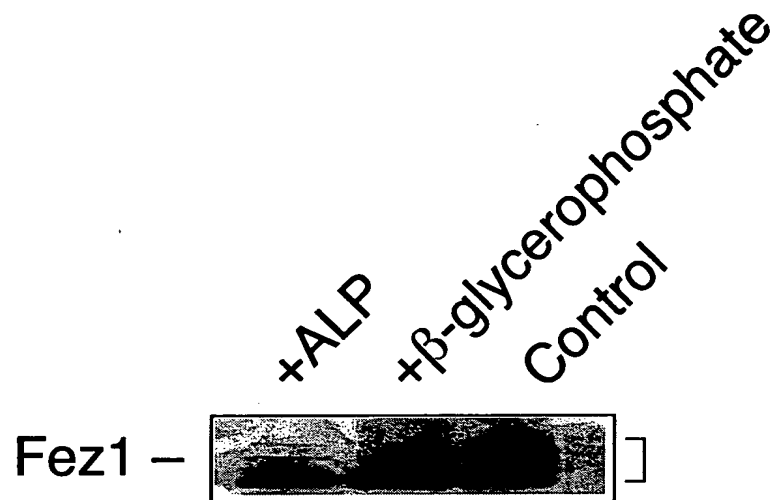


FIG. 20

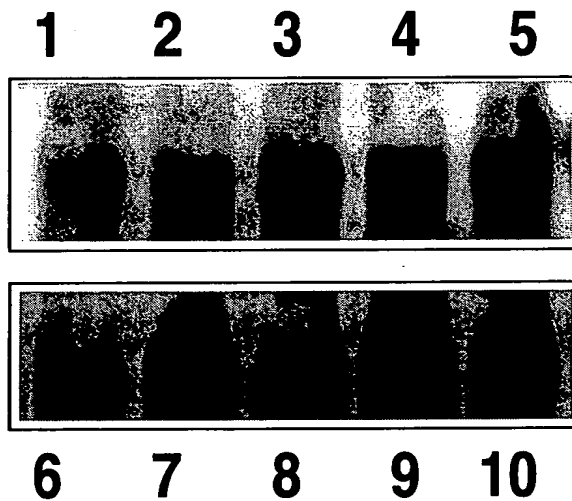


FIG. 21

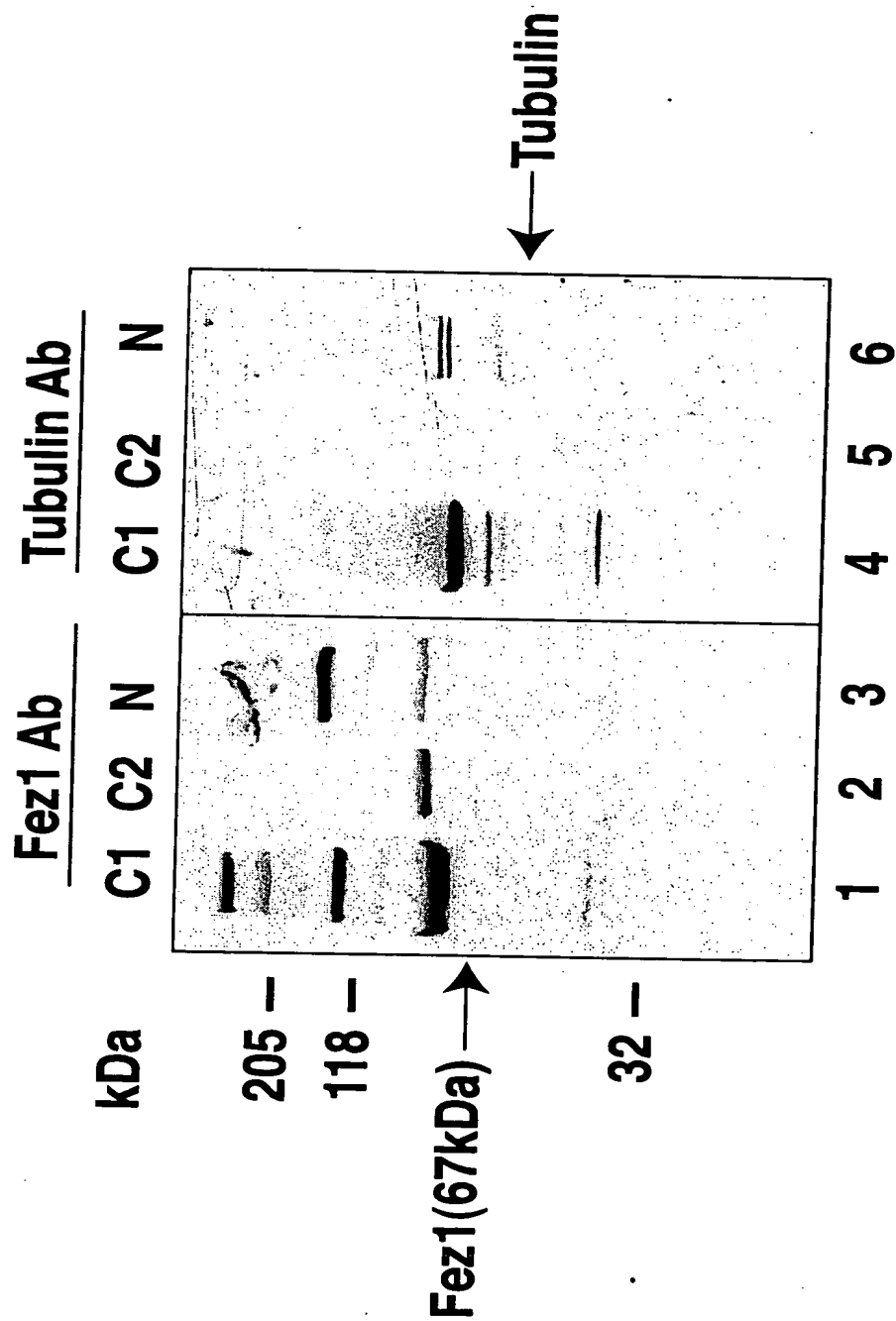
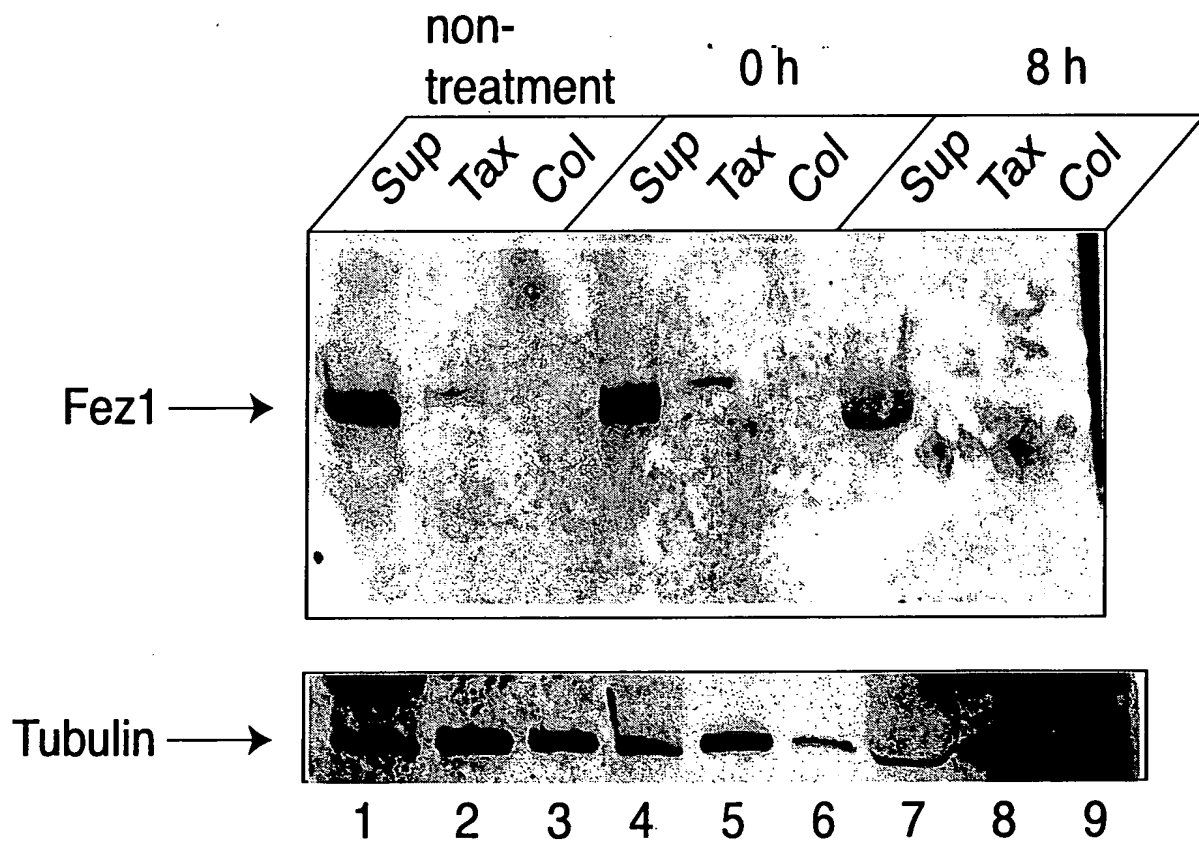


FIG. 22



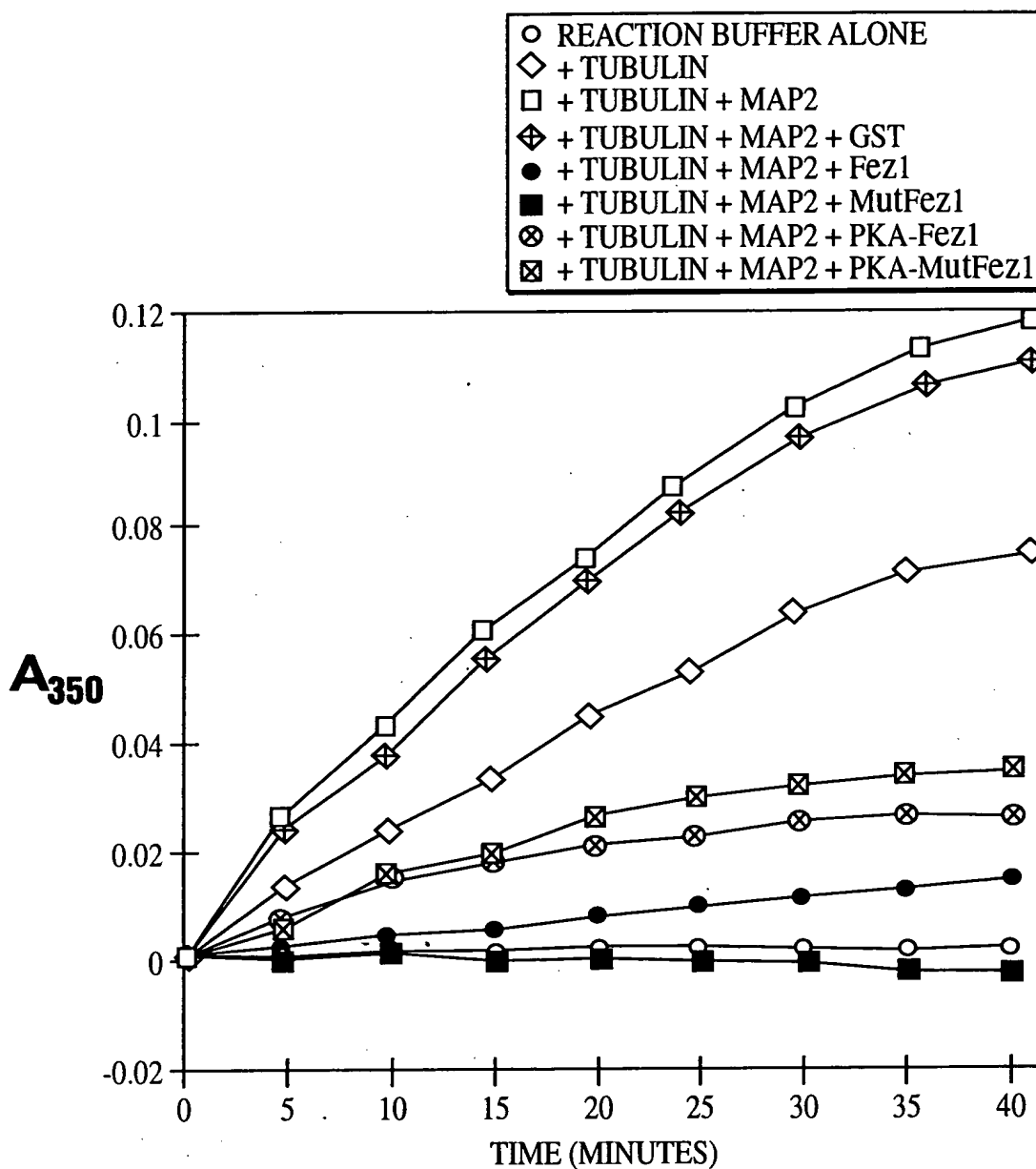


Fig. 23